Australian Consumers' Association

APRIL 1996

CHOICE

Confused by super?

Our guide answers your questions

Is your car a lemon?

Which models are the most reliable?

Pay TV

The story so far...

Tests

Portable TVs

Laundry detergents

About the Consumers' Association

The Australian Consumers' Association is a non-profit, non-party-political organisation established in 1959 to provide consumers with information and advice on goods, services, health and personal finances, and to help maintain and enhance the quality of life for consumers.

We are completely independent. We buy randomly in the marketplace all the products we test. We are not beholden to any commercial, government or union interests, and we don't accept advertising, paid or unpaid. Our income is derived from the sale of CHOICE and our other publications and products.

We test and rate products and services. Our CHOICE ratings are usually based on quality without regard to price, and are derived from lab tests, expert judgments and reader surveys. If a product is high in quality and relatively low in price, we deem it a Best Buy. A rating applies only to the brand and model tested, not to other models sold under the same brand name, unless so noted. We can't conduct special tests or provide information about tested products beyond what appears in CHOICE.

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We represent and act in consumers' interests. We lobby and campaign on behalf of consumers to promote consumers' rights, to influence government policy, and to ensure consumer issues have a high profile in the public arena.

Membership. Subscribers can become voting members of the Consumers' Association on application. Membership costs $75 per year, which covers your subscription to CHOICE plus a further subscription to our policy magazine, *Consuming Interest*.

About CHOICE

CHOICE is published monthly by the Australian Consumers' Association.

Subscription rates. $48 for one year, $89 for two years; institutions $66 per year.

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Test Research provides fee-for-service testing of consumer products for other consumer organisations, government and industry. Contact Jeanette Dwyer on (02) 559 9801.

Consuming Interest, our quarterly campaigning magazine, is published in February, May, August and November. It provides straight facts, probing analysis, in-depth reporting, informed opinion and stimulating debates. It also gives updates on the lobbying and campaign projects of the Consumers' Association.

CHOICE Travel. This magazine is produced by the UK Consumers' Association and reprinted by CHOICE four times a year. Its reports are independent in the same style as CHOICE and, while they're written from the perspective of a European base, most of the information in them is just as useful to travelling Australians.

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Cover photo: Kent Mears

Coming in the next three issues

Tests: Gas heaters, car steering wheel locks, kitchen knives, Internet service providers, exterior paint, CD-ROM encyclopaedias, first aid kits, camcorders, food from salad bars.
Reports: Personal super, car security, carpet cleaning methods, genetic engineering in food, how to add value to your home, new surgical techniques, toothpaste, how to choose a lawyer, supermarket price and satisfaction survey results, health insurance, cold and flu treatments.

We try to bring you tests and reports in the planned month, but sometimes have to move an article because of problems that occur during testing and research, or for lack of space in a particular issue. We apologise if this causes any inconvenience.

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You'll find green labelling claims on all sorts of products these days — what do they mean (if anything) and can you trust them?

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A bumper crop this issue!

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If you're confused about superannuation, you're not alone. Our guide explains how it works, when you're entitled to get it, what happens if you change jobs — and, most importantly, how to work out how much you'll need.

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Which cars kept going for most of the year, and which models left their owners stranded?

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The pay TV stations are racing each other to get their technology to your door. Who are they, what do you get, and what do you pay for it?

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What you need to know before you start, and tips on what to do — and what not to do.

Choice Tests

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Although the big names scored the best in our tests, to the naked eye some of the cheaper products looked as if they washed just as well.

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Good as a second set or for a small living room, these 34 cm TVs may all look the same, but our tests showed up some differences.

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Motorised scooters

ANSWER TO CHILDHOOD DREAMS A NO-NO

REMEMBER THE DAYS as a child when you'd ride a two-wheeled scooter and feel exhilarated flying down a hill? And then remember feeling not so exhilarated when you'd have to push it back up that hill?

While scooters seem to have faded in popularity compared to skateboards and in-line skates, there are signs of them making a comeback, reincarnated as a motorised scooter.

While this may seem like the answer to childhood dreams — no more clambering back up hills — don't rush out to buy one just yet.

In most states and territories, these scooters are regarded as motor vehicles because their engines are so powerful — enough to go as high as around 30 km/h. In their current form, they're unlikely to meet Australian Design Rules for motor vehicles and haven't been approved by the Federal Office of Road Safety — which means they can't be registered by state road traffic authorities.

So if you buy one, you shouldn't use it on any public roads or areas (such as parks or footpaths), because you'd be driving an unregistered and uninsured vehicle. They can only be driven legally on private property.

WELL, I STARTED ON SKATE BOARDS
MOVED UP TO ROLLER BLADING
THEN TOOK UP MOTORISED BOOT SCOOTING
HEY! THESE WHEELCHAIRS ARE GREAT!

Royal jelly warning

LABELS MUST WARN OF DANGER

THE NSW HEALTH DEPARTMENT has renewed warnings that consuming royal jelly can be hazardous, after a statewide investigation found many products don't have compulsory warning labels.

Under the national Food Standards Code, since 1994 all packages of royal jelly have been required to state that the product is "not recommended for asthma and allergy sufferers, as it can cause severe allergic reactions". Sensitive people may experience breathing difficulties and could even die after consuming it.

The renewed warning follows the recent death in Sydney of an asthmatic woman after taking royal jelly — a thick, white substance made by bees to feed the hive's larvae, which is claimed to boost energy and vitality. There was reportedly no warning to asthmatics on the bottle she used.

All food products likely to trigger allergic reactions need especially clear warnings on their labels, and food labelling standards should be enforced more strictly.

Meanwhile, if you see any royal jelly products which don't carry a health warning, contact your state health authority.

Royal jelly is potentially hazardous — and there's no evidence that it can be beneficial. It contains vitamins B_5 and B_6, but it's of no proven value to humans, since the quantities of these vitamins present in royal jelly preparations are minuscule. They're found in much larger quantities in a wide range of foods, and it's very unusual for people to be deficient in them. So save your money and give royal jelly a miss.

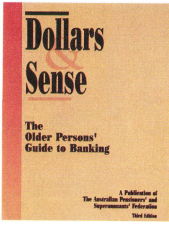
Check royal jelly labels for a warning to asthmatics and asthma sufferers. The bottle at the back has one, the one at the front doesn't.

Banking guide

HELP FOR OLDER PEOPLE

THE AUSTRALIAN Pensioners' and Superannuants' Federation (APⅈSF) has written a useful guide to banking. *Dollars and Sense* will help you analyse what's on offer — with particular reference to the needs of older people. It explains the technology in use — ATMs, EFTPOS and phone banking — covering the pros and cons. It also covers the rules about deemed interest and pensioners' deeming accounts.

To get the 36-page booklet, send a cheque or money order for $5 to APⅈSF, Suite 62, 8-24 Kippax Street, Surry Hills 2010, or phone (02) 281 4566 (or, for older people, 1800 242 629).


Dollars & Sense
The Older Persons' Guide to Banking
A Publication of The Australian Pensioners' and Superannuants' Federation
Third Edition

Corrections

PERSONAL LOANS

CHOICE, January 1996

In the table on page 27, we reported that **HERITAGE Building Society (Queensland)** had a $75 annual fee attached to its secured personal loan with a variable interest rate. We should have said that a $75 initial fee was charged. There is no annual fee attached to Heritage's personal loans.

TERMITES

CHOICE, January 1996

In *Insurance against termite damage?* on page 17, we said if you have TimberSure termite insurance and there's timber damage, "FAI selects the operator to fix it — so your options are restricted. "We should have said, "FAI may choose to select the operator to fix it, so your options may be limited."

'Country of origin' changes

'MADE IN AUSTRALIA' MAKEOVER

IF YOU THOUGHT 'MADE IN Australia' on a label guaranteed the product was made here from Australian ingredients, you're sadly mistaken. Finally, though, an agreement has been reached to bring the meaning of the words closer to what most people understand by them.

At present the term 'Made in Australia' can be used if the production process which changed the "essential character" of the product took place in Australia. For example, turning imported peanuts into peanut butter could arguably be enough to let a manufacturer use the label.

The newly regulated terms will require products with major ingredients imported from overseas to carry qualified labels such as 'Made in Australia from Australian and imported ingredients'. This is intended to indicate they are not wholly Australian made, but that a majority of ingredients are Australian. When the terms are reversed ('Made in Australia from imported and Australian ingredients'), a majority of the ingredients are imported.

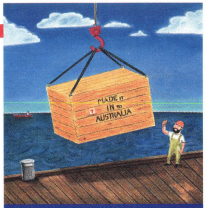
The agreement on the new labelling terms was reached with the involvment of the Consumers' Association, industry and union representatives.

CHOICE readers regularly let us know they'd like to buy Australian if only they could trust the labels. And our survey of shoppers (reported in the January 1993 issue) clearly showed many people are being misled by the current use of terms. For example, 49% thought 'Australian made' meant all ingredients were made in Australia.

The revamped terms are therefore welcome as a step forward in truth in labelling. It's to be hoped the food industry will mount an education campaign to clearly explain them as assiduously as some members of it fought against changing the claims' meaning.

The new agreement unfortunately still has to clear a few hurdles, including official endorsement by the Food Standards Council, which includes all government health ministers. An active monitoring program also needs to be put in place to ensure that truth in country of origin labelling is achieved.

In the interim let's hope the principles behind the agreement are taken on voluntarily by industry. We'll keep you updated on when you can expect the new terms to be universally adopted.



'Made in Australia' will soon mean something closer to what most people think it means.

Health rights

PRIVATE PATIENTS' CHARTER

AT THE TIME OF WRITING OUR hospitals article for the March issue of CHOICE, a Private Patients' Hospital Charter was still being developed. The Charter, which outlines what you can expect from your doctor, hospital and health fund if you have private health insurance, has recently been published. You can get a copy from your health fund, the Private Health Insurance Administration Council (phone (06) 285 1644) or the Private Health Insurance Complaints Commissioner (phone 1800 640 695).

Here's the Charter's summary of what you can expect as a privately insured patient.

From your doctor and hospital:

- Choice to be treated as a public or private patient in a public hospital.
- Choice of doctor as a private patient and access to treatment in a private or public hospital.
- Advice on the likely costs of your treatment and any out-of-pocket expenses.
- An explanation of your treatment and its risks before you give your consent.
- Advice on seeking a second medical opinion.
- Confidentiality of personal information.
- Treatment with respect and dignity.
- Advice on care after discharge.
- Advice on making a complaint.

From your health fund:

- Advice on the health cover available, premiums, benefits and conditions.
- Advice on making a complaint about a private health insurance matter.

Free offers

MAIL ORDER INSURANCE

ONE OF OUR READERS, a Commonwealth Bank account holder, received an offer from the Commonwealth Bank — $1000 free accidental death cover; acceptance guaranteed and no health questions. She asked if there was a catch, and whether it was a good idea.

■ **The offer:** An insurance policy which pays out if you're killed in an accident. Our reader was offered $1000 free cover for 10 years, simply by returning the completed enrolment form, and the opportunity to take out extra cover up to $150,000 at a cost of around $2 per $1000 of cover per year. And the policy doesn't have a disclosure clause, so you're not required to tell them anything about yourself that they don't specifically ask.

■ **The catch:** This free insurance isn't actually worth much. The likelihood of a claim is (thankfully) very small, because you're unlikely to die as the result of an accident "caused solely and directly by violent, external and visible means". The policy also excludes the following:

— Accidents while under the influence of alcohol or drugs.
— Suicide.
— Accidents while flying (other than as a fare-paying passenger or crew on a registered airline).
— Accidents while driving or riding in a race or time trial.

Using the quoted costs of the additional cover, the $1000 free cover is worth around $20 over the 10 years it's provided.

■ **Our verdict:** There's no reason not to take out the free accidental death insurance, but think carefully before paying for extra cover of the same sort. This sort of insurance isn't a substitute for adequate life insurance.

If you've got dependants, insurance which will only pay out if you're killed in an accident can't provide the financial security they need. Having said that, if you have a dangerous occupation or take part in a dangerous sport (and it isn't explicitly excluded in the policy conditions), a policy like this might be a useful way of getting insurance to cover your accidental death.

Can you help?

We'd like examples of financial offers that make you wonder what's behind them. Please send them to **Junk mail**, CHOICE, 57 Carrington Road, Marrickville 2204 — but note we aren't able to give individual replies.

The basics of super

Superannuation is now a fact of life for almost all members of the workforce, and a growing proportion of your wage will be put into a super fund. What does this mean for your financial well-being?

SUPER WILL FORM THE BASIS of your income in retirement. In the process, it will probably become your major financial asset after your home. For many Australians, in fact, super will be their biggest financial asset. But while many people support the concept of superannuation, the current system suffers from some significant flaws. For a start, there's the complexity of super — if you find it hard to understand, you're not the only one!

How can you get the most out of your super? In this and the next issue of CHOICE we explain the key features of superannuation. This month's article will help you determine:

- How super works (pages 6-7).
- When you can get your super (page 8).
- How your super is taxed (page 9).
- Where to go if you run into problems (page 10).
- Where to go for more information (page 10).
- What to do if you change jobs or leave the workforce (pages 10-11).
- How much super you'll need (pages 12-13).

WHAT IS SUPERANNUATION?

Superannuation is money you save now to provide an income for your retirement. A proportion of your salary is contributed to a super fund, which is then invested to earn additional income. When you retire, you receive a 'benefit' payment

WHAT SORT OF FUND IS MY SUPER IN?

Your money will be in any of four broad types of super fund. It may be in more than one type, especially if you have changed jobs.

- **Industry and employer-sponsored funds.** These include:
  — Company funds (established by individual employers or a group of companies).
  — Industry funds (established by unions and employer associations).
- **Public sector funds.**
- **Retail or 'public offer' funds:** Marketed by life insurance offices and other large financial institutions. They include 'personal super', and they're the option many self-employed people will take.
- **'Excluded' funds:** These are small funds (four members or less) and include a rapidly growing number of do-it-yourself (DIY) funds.

What about the pension?

Australia has a long-standing age pension system that helps to provide older people with financial security (contact the Department of Social Security on 13 23 00 for more information). The government has indicated a commitment to maintaining the pension at the current level, which is around 25% of average earnings (currently $336 a fortnight).

It's also pushing people to support themselves in their retirement, and some people fear that support for the pension will be undermined. We think the pension will continue to be essential for a large section of the aged population, even with a fully implemented super system.

WHERE DO MY CONTRIBUTIONS COME FROM?

If you're an employee, your contributions may have up to three components: a compulsory contribution (under the 1992 Superannuation Guarantee (SG) legislation), a contribution required under an industrial award and, if you choose, voluntary contributions on top of these. (See *Self-employed and super* on page 8 if you're self-employed.)

■ The SG or **compulsory contributions** at present require your employer to contribute 6% of your gross salary (5% for smaller firms with $1 m payroll or less) to a super fund on your behalf. The full contribution is being gradually increased up to the year 2002, when it will reach 9% of your wage.

From next year there may be additional components to the compulsory employer contribution, assuming there are no changes to the contribution requirements under the Coalition government:

■ **Employee contributions:** Starting in July 1997 you will have to contribute 1% of your wage directly to super. This contribution will also increase gradually up to 3% in 1999.

■ **Government 'co-contributions':** Starting in July 1998, a 'co-contribution' will be made to your super fund that matches your employee contribution from the previous year. This government co-contribution is subject to restrictions that mean it cuts out at higher income levels.

Table 1 (below) sets out the schedule for all these payments. The combined effect means that by 2002, most employees will see at least 15% or more of their wages going towards superannuation.

■ **Award superannuation contributions:** If required under an industrial award, your employer makes these contributions. These often overlap with the SG contributions, so that if your award already provides for your employer to pay, say, 7% super, they are already covering the required SG contribution.

■ **Voluntary contributions** can be made by your employer or yourself in addition to contributions required by law. Additional employee contributions may eventually be matched by the government (with income-based restrictions).

Superannuation Guarantee contributions (as a % of your salary)

Year	Small firm (%)	Large firm (%)	Employee contribution (%)	Government contribution (%)	Total (%)
1995-96	5	6	—	—	5-6
1996-97	6	6	—	—	6
1997-98	6	6	1	—	7
1998-99	7	7	2	1	10
1999-2000	7	7	3	2	12
2000-01	8	8	3	3	14
2001-02	8	8	3	3	14
2002-03	9	9	3	3	15

Table 1. The second and third columns in the table are your employer's contribution. A small firm is defined as having a payroll of $1 million or less.

Super in CHOICE: Part 2

Next month's CHOICE will look at the critical issue of your super fund's performance, and explain the different investment options you may have. We'll examine the fees and charges that apply to your super, and ask whether you're getting value for money. And CHOICE will give you guidance about choosing a good super fund if you're self employed or want to put 'top-up' money in a personal super fund.

Later this year we'll look at what to do with your super benefit in retirement.

DO I HAVE TO HAVE SUPER?

Superannuation Guarantee contributions are compulsory for employees, with a few exceptions. The cases in which your employer does not have to contribute on your behalf are:

■ If you earn less than $450 per month.

■ If you're still working at age 65 or older.

■ If you're under 18 and work less than 30 hours a week.

■ If you're a non-resident employee, or are working for a non-resident employer, and are paid for work done solely outside Australia.

■ Some Defence Reserve Force employees.

The election and super

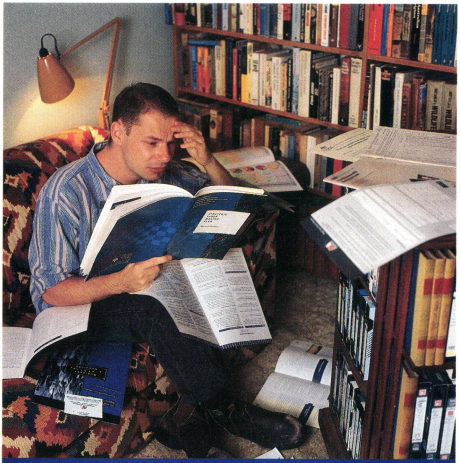
The timing of this article meant it was written as the election result became known. The Coalition has pledged to maintain the basic features of the super system, but has proposed several changes:

■ People earning less than $900 per month may opt for SG contributions or may take the equivalent in salary.

■ 'Retirement savings accounts' (RSAs) will be offered as another form of super product (they will be more like a bank account).

■ You will no longer be able to take super amounts of $500 or less as cash when you're changing or leaving jobs.

The Coalition has also said it will increase super choice and look at allowing super to be used to purchase housing.



Confused about super? You're not alone. What's more, many people who are halfway through their working life or close to retirement may have little hope of getting a decent payout unless they pay thousands of dollars in voluntary contributions each year. See *How much will I need?* on page 12 for details.

WHAT SORT OF SUPER PLAN DO I HAVE?

There are two basic types — accumulation plans and defined benefit plans. The major difference is that under a defined benefit plan you know how much you'll receive at retirement, but you don't under an accumulation plan.

Most people are now in accumulation plans. Under such schemes, the amount you contribute to your fund is set, while the retirement benefit you receive is uncertain. The money you 'accumulate' for retirement depends on the investment performance of your fund, which can vary widely — it's important to take an interest in your investment.

Under defined benefit plans, the benefit you receive when you retire is predetermined, usually based on your years of service and your wage. Your final benefit doesn't depend on the performance of the fund, so the employer (often the government in these schemes) bears the risk of having to cover for bad performance.

WHEN CAN I GET MY SUPER?

Your super may have both 'preserved' and 'non-preserved' parts. You can't get preserved super until the 'preservation' age of 55, even if you retire earlier. If you change jobs after you turn 60, you can take your super. Otherwise, if you're still working you can't get it till you're 65 — but then you can take it even if you continue to work.

So if you change jobs, you can't simply take your preserved super and use it for a holiday, a new car or another investment. The government has indicated it will gradually raise the preservation age to 60.

However, under certain circumstances preserved super can be accessed early, including:

- Permanent departure from Australia.
- Severe financial hardship.
- Death or permanent disability.

In each case you should contact your fund to apply for early access — different funds will have different rules in some of these cases. And remember you may have to pay tax on your benefit.

The most important occasion for early access to super usually arises from cases of death or disability. If, for example, your partner dies before he or she retires, the trustees of the fund usually pay out the money to you. To avoid disputes, it's a good idea to nominate your 'preferred beneficiary'. Ask your fund to send you a form if you haven't nominated someone already.

If you become 'totally and permanent disabled' (TPD) you should also be able to get your super. Unfortunately, this is an area rife with disputes, as differing definitions of TPD still leave room for conflicting assessments of work ability and medical evidence.

Certain types of voluntary contribution are non-preserved and can be accessed early. Generally, you can get back non-preserved voluntary contributions you've made to an employer-sponsored fund when you change jobs. Check with your fund.

Self-employed and super

If you're self-employed, the principle of super is the same but the practice is very different. The biggest difference is that it's not compulsory, but there are incentives to entice you to put savings into super. The major one is that instead of an employer contribution, you receive tax concessions for your own payments into a super fund.

Your first $3000 paid each year into a super fund is fully tax-deductible, after which the deduction is 75% of any contribution. These concessions cut out once your contributions exceed the maximum deductible limits set out in Table 2 on page 9. However, any contributions you make without claiming a tax deduction are not included in these limits.

You have two broad options for super funds. You can choose one of the many super policies provided by life insurance companies, banks, etc (which we'll look at next issue). Or you can do-it-yourself by setting up your own fund.

HOW IS MY SUPER TAXED?

Broadly speaking, super is taxed three times.

■ **When contributions are made:** The part of your wage that is contributed by your employer to your super fund is taxed at a concessional flat rate of 15%.

■ **While in the fund:** The investment earnings that your super fund achieves are a form of income for you. They are also taxed at the concessional 15% rate (or less for some investments).

■ **When you take your benefit:** Upon retirement your super benefits may be taxed — how much depends on the amount you have accumulated and how you take the money.

If this was all that could be said about the taxation of super, a whole herd of financial advisers would be out of a job tomorrow. Unfortunately, things are more complex in practice.

For a start, the taxation of your retirement benefit depends on such things as your age at retirement and how much is being paid out. The government restricts how much super you can take as a lump sum and still qualify for concessional tax rates — this is known as your 'reasonable benefit limit' (RBL). CHOICE will be exploring the taxation of super benefits at retirement in more depth when we cover investing in retirement later this year.

Tax: Maximum deductible contribution (MDC) 1995 -96

Age at year end	MDC per year
Under 35	$9405
35-49	$26,125
50 and over	$64,790

Table 2. The maximum amount an employer (or, if you're self-employed, you) can contribute to your super and still claim a tax deduction. If an employer has 10 or more employees, an average of $26,125 per employee can be used.

HOW ARE VOLUNTARY CONTRIBUTIONS TAXED?

If your employer pays more into your super than is required under SG rules, the payments still qualify for tax deduction and the concessional 15% tax rate. So from a tax perspective, it may be beneficial if you can arrange for your employer to make extra contributions. For higher income earners this may be through a 'salary sacrifice' arrangement, whereby take-home pay is traded off for additional super.

Many people making voluntary payments are likely to make their own contributions rather than rely on their employer.

These are not tax-deductible. Instead they come out of your after-tax income, and are known as 'undeducted' contributions. Because they have already been taxed, these payments are not taxed any further when they are contributed to the fund or when you take your benefit. However, earnings from them are still taxed at 15% while in the fund.

The contributions made by your employer are tax-deductible — for your employer. The amounts they can claim as a tax deduction are subject to limits (see Table 2, *Tax: Maximum deductible contribution 1995-96*, left).

DO I QUALIFY FOR THE TAX REBATE?

The government offers a small tax rebate on voluntary super contributions for lower income earners. If your taxable income is less than $27,000 a year, you can get a maximum rebate of 10% on the first $1000 you contribute to an employer or industry fund. In practice this means the tax you pay is reduced by up to the grand total of $100! The rebate starts to drop once your income exceeds $27,000 and it cuts out altogether after $31,000. On this level of income you're probably better off using the $1000 for current needs.

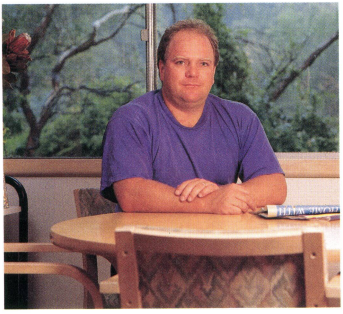
SUPER JUSTICE CAN BE HARD TO FIND

David's situation highlights the problems with seeking fair treatment in the super system, and also indicates some of the problems with insurance offered by super funds.

David was employed as a truck driver and suffered injuries in August 1991 and June 1992. He has continual and debilitating pain in his back and right leg, and has arthritis in his spine. His employment was terminated in 1993. His doctors say he will have to live with his disability and he has been assessed as totally and permanently disabled (TPD).

Death and disability insurance is offered as part of many super schemes, though the fund may not make you aware of this when you join. David's fund included a TPD benefit of up to $100,000. He lodged a claim in November 1992, which was rejected by the fund's trustees, on the advice of the insurer, on three occasions between 1993 and 1994. The Superannuation Complaints Tribunal (SCT) wasn't able to hear his claim, as it couldn't then deal with medical disputes. The coverage of the SCT was expanded in late 1995, but because of time limits on complaints, David is still waiting to hear whether the SCT can handle his dispute.

Under pressure from the super industry, the government allowed the SCT to deal with medical complaints only if the decision on the claim was made after October 31, 1994, and the complaint was lodged within 12 months of the original decision. This potentially excludes many people like David.



As a result, many fund members will still have to resort to court action to claim disability benefits. The restrictions on access to the SCT should be lifted.

IS MY SUPER SECURE?

Your super is generally very safe — but there are no guarantees. While the collapse of a financial institution is a rarity, the history of financial markets demonstrates that it does occasionally happen.

However, extensive regulations protect the security of your super. Funds are regulated by the Superannuation Industry (Supervision) Act (apart from some public sector schemes). The government regulator, the Insurance and Superannuation Commission (ISC), oversees trustees' activities and should ensure the stability of the superannuation system.

Security and risk will always be an issue with any investment, but you should distinguish between types of risk. For example, the risk of fraud is not the same as the risk associated with investing in new companies. The former is something investors will always want to avoid. But the latter is a risk you may want to take if you think such companies will bring a better return on your investment. So don't assume the investment with the lowest risk is your best option, as generally lower risk is associated with lower returns. We'll look more at this issue in next month's CHOICE.

WHAT IF I'VE LOST TRACK OF MY SUPER?

It's surprising how much untraced super is in the system. The amount has been estimated at around $250 million, in around 400,000 accounts. Contact your former employers or the Australian Taxation Office if you can't locate your super.

WHAT IF I HAVE A COMPLAINT OR DISPUTE?

As a first step, raise any problems you have with your employer or your fund (and keep a record of your complaint). If this doesn't bring satisfaction, you have a number of options.

If the dispute is with your employer over whether they have paid your super (or whether they have paid enough), contact the Tax Office or, if applicable speak to your union.

If the problem is with your fund, you can take it to two alternative dispute resolution schemes:

- The Superannuation Complaints Tribunal (SCT) is an independent body established by the government to resolve disputes between funds and their members. The SCT provides a free service. The types of complaints it can deal with have recently been expanded, but there are still problems with its inability to hear certain disputes arising before November 1994.
- The Life Insurance Complaints Service (LICS), an industry complaints resolution scheme, may deal with problems arising from personal superannuation products.

SUPER'S NOT THE ONLY GAME IN TOWN

While super is a key part of your financial future, it's not the only destination for your savings. In particular, you may be better off using additional savings to pay off your home or other major debts before you put extra money into super.

You may want an investment that doesn't tie up your money until you retire, or just more flexibility, especially if you're looking to buy a house or raise a family. If so, it may be better to put the minimum compulsory amount into super for a while.

There are a lot of financial advisers out there who will benefit if you put more money into their preferred super schemes. But your savings are much too important to be based on horror stories of abject poverty in old age from someone who then offers to sell you the solution.

So seek reliable, independent investment advice — our April 1995 article on the financial planning industry gives tips on how to find this elusive commodity.

What happens or leave empl

If you're leaving a job before retirement, you will have to 'preserve' your super (the exceptions are outlined in *When can I get my super?* on page 8). Unless you're in a 'portable' award super scheme (which you can simply stay in), on leaving your job you will receive what is known as an 'eligible termination payment' (ETP). This will consist of your employer contributions plus any additional contributions and investment earnings.

When changing jobs you should be asked by your fund what you want to do with your super (your ETP). You have basically three options:

- You can 'roll over' the ETP into your new employer's super fund.
- If this is not possible or desirable, you can roll over your ETP into a separate fund, such as another super fund, an approved deposit fund or a deferred annuity, where the money must be preserved until you retire. Life insurance companies, banks, building societies and other financial institutions offer these products.
- Finally, you may be able to leave your

Where can I get more information?

Your fund is required by law to give you information about how it is managed and its investment performance, major events that have an impact on the fund and information about your benefits once you leave. You should receive a member booklet when you join a fund. Once in, you should receive statements at least once a year — we think it should be more often. Next issue we'll show you how to understand the information about fees, charges and fund performance contained in your member statements.

The complexity of super, especially if you're approaching retirement, may mean you have to seek expert advice. But be careful: as our April 1995 CHOICE article pointed out, it's wise to approach the investment advisory industry with your eyes open.

CONTACT LIST

- Insurance and Superannuation Commission: 13 10 60.
- Superannuation Complaints Tribunal: 13 14 34.
- Life Insurance Complaints Service: 1800 335 405.
- Australian Taxation Office: 13 10 20.

to my super if I change yment?

super in your current fund, which could be a useful option if you don't have another job to go to.

Immovable objects

It's generally a good idea to put all your super into one fund if possible, as it's more convenient and cost-efficient. However, attempting to consolidate your super can be very frustrating — mobility is one of the super system's weakest points. And keep in mind that some funds have nasty exit fees — make sure you check before moving your money.

The performance of the super industry when it comes to moving people's super is pitiful (see *Pam's super saga* below). These days almost one in five people changes jobs in any year, more people work on a part-time basis and there is an increased likelihood of spending time outside the workforce.

The super industry should be equipped to deal with the working patterns of the 1990s, but instead the system seems to have been designed for the typical working pattern of the 1950s, so that the biggest benefits go to full-time workers who stay in the one job (and who are more likely to be male). The industry has established a 'transfer protocol', supposedly to simplify the movement of super money, but it's voluntary and doesn't apply to all funds.

The government needs to strengthen the transfer arrangements and make adherence to effective transfer standards compulsory.

What is vesting?

Vesting is another issue you may come across when leaving jobs. In an employer-sponsored super fund, vesting refers to the amount of the fund that you 'own'. Compulsory contributions (award and SG) and your own voluntary contributions are immediately fully vested.

However, you may discover on resignation or retrenchment that you don't get all the money in your super account — in other words, the benefit is not *fully* vested. This arises because your access to non-compulsory employer contributions may be subject to conditions such as how long you have been in your job.

Vesting has given rise to some appalling rorts in past years (such as employees being retrenched immediately prior to qualifying for full vesting). These have declined, but it's worth inquiring about vesting if you're joining a fund where you will receive additional employer contributions.

PAM'S SUPER SAGA

Pam joined the JUST super fund while working as a designer in 1988. She changed jobs in 1992 — which is when her super saga began.

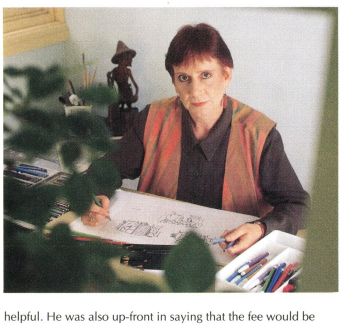
Although JUST is a portable scheme (theoretically at least, you can stay in the scheme if your job is still in the industry), in her new job she was required to terminate her JUST membership and join the CARE super fund — "The reason being I was the only JUST member and the company said it was too much trouble."

In February 1995 Pam's position was made redundant and she started freelance work. She applied to rejoin JUST, under the mistaken impression that because it was the fund for media and entertainment workers, it would cater for the needs of people with the less stable work patterns typical of this industry.

But when Pam rolled over her super to JUST, she received a letter "thanking me for becoming a member of the fund but stating that they could not accept my rollover payment from CARE". Pam rang the fund administrator, and was told that JUST required an employer contribution before it could accept her money and would have to return it if such a payment wasn't made. She pointed out that she was working freelance, "and they told me they could see my problem but couldn't do anything for someone in my position".

Now a third fund enters the scene. One employer for whom Pam did a small freelance project required her to pay into a National Mutual fund. Her fears of having super money in several different funds were being realised, and she was also finding it difficult to see any consistency in the way employers deal with super.

Pam decided at this stage to look at personal super. She spoke to an insurance company representative, "who was



helpful. He was also up-front in saying that the fee would be 5%, although I wasn't clear what this 5% figure represented." Pam decided to shop around before choosing a fund.

She then started work with another employer, who provided the option of rejoining JUST, and so her search for a personal fund stopped. However, on contacting JUST she received yet another copy of its original letter saying that if it didn't receive employer contributions it would send her money back to CARE.

And so the saga continues.

How much will I need?

This is the most important question with super, but there's no simple answer. The difficulty is achieving a balance between your current needs and your needs later in life. There are, however, some guidelines that can help. In particular there are three key questions you'll need to address.

HOW MUCH WILL I SPEND EACH YEAR IN RETIREMENT?

Saving is not an end in itself — you save today so you can spend in the future. This is a useful way to look at super. But how much will you spend in retirement?

Factors that may influence how much you spend each year include:

- Your desired lifestyle (are you going to take that overseas trip?).
- Your life expectancy.
- The assets you have already accumulated (for example, do you own your own house or will you be paying rent?).
- Whether you have any dependants.

A common approach to this question is to think of your income in retirement as a proportion of your working income. For most people, expenses in retirement are lower than during the years when they are buying a home or raising children, so you'll need less than your present income.

The pension is currently set at around 25% of average earnings. Many people would like a higher income in retirement, say around 50-70% of their salary. This could require you to accumulate a hefty lump sum, which leads to the next question.

HOW BIG WILL THE LUMP SUM NEED TO BE?

Once you've decided how much you'd like to be able to spend, you have to work out the lump sum that will allow this expenditure. That is, what is the size of the super benefit payment you'll require to support your needs in retirement?

It's easier to think about this issue if your lump sum is converted into an annual income. You can buy various financial products that will do this — in effect they'll give you a personal pension. An annuity is one such product. By showing the annual value of the annuity you can buy with a lump sum super benefit, you can get a clearer idea of how much you'll need to save. For example, if you're a man, a lump sum of $235,000 will buy you an annuity of around $18,000 a year at age 65.

The age at which you want to retire naturally makes a difference — if you stop work at 55 you'll need a much larger sum of money to support your desired income than if you retire at 70.

You'll also need a larger lump sum to get the same income if you're a woman. As an example, to enjoy a retirement income of around $27,000 a year, you'll need a lump sum of $355,000 if you're a man, or $425,000 if you're a woman. Why the difference? Women on average live longer, and so their annuities have to stretch further. We'll deal with this issue in more detail later this year when we look at investing in retirement.

Scenario 1: Current income $30,000, retirement income $18,000

	Contributions per year, starting now		Contributions per year if you already have $10,000 in super	
Age now	Male	Female	Male	Female
25	2850 (250)	3350 (800)	2250 (0)	2850 (300)
35	4500 (1950)	5400 (2850)	3950 (1400)	4800 (2300)
45	8150 (5650)	9800 (7300)	7400 (4900)	9050 (6550)
55	19,600 (17,250)	23,700 (21,300)	18,400 (16,000)	22,450 (20,100)

To get a retirement income of $18,000, you'll need around $235,000 saved if you're male, $285,000 if you're female.

Scenario 2: Current income $45,000, retirement income $27,000

	Contributions per year, starting now		Contributions per year if you already have $10,000 in super	
Age now	Male	Female	Male	Female
25	4250 (450)	5000 (1150)	3750 (0)	4500 (650)
35	6800 (3000)	8050 (4250)	6250 (2450)	7500 (3650)
45	12,300 (8550)	14,600 (10,850)	11,550 (7850)	13,900 (10,150)
55	29,600 (26,050)	35,300 (31,750)	28,400 (24,850)	34,100 (30,550)

To get a retirement income of $27,000, you'll need around $355,000 saved if you're male, $425,000 if you're female.

Scenario 3: Current income $60,000, retirement income $36,000

	Contributions per year, starting now		Contributions per year if you already have $10,000 in super	
Age now	Male	Female	Male	Female
25	5700 (600)	6700 (1550)	5200 (100)	6200 (1050)
35	9100 (4050)	10,750 (5700)	8550 (3450)	10,200 (5100)
45	16,450 (11,450)	19,600 (14,600)	15,750 (10,750)	18,850 (13,850)
55	39,600 (34,850)	47,350 (42,650)	38,400 (33,650)	46,150 (41,400)

To get a retirement income of $36,000, you'll need around $475,000 saved if you're male, $570,000 if you're female.

The first figure in each column shows the total amount of super you need to save each year to get these incomes. The figures in brackets are the 'top-up' amounts — the part of the total *you* would have to contribute over and above your employer's compulsory contribution. As compulsory employee and government co-contributions are phased in up to 2002, your top-up amount should be able to decrease correspondingly.

Figures courtesy of Coopers & Lybrand Actuarial and Superannuation Services

The big picture

Why super, why the changes, why now?

People have always needed income during retirement — so why the big fuss about expanding compulsory super now? The 'big picture' argument is that the government will not be able to afford pension payments next century, as the proportion of older people in the population increases. There is an additional argument that we need to increase national savings, and forcing people to put money into super will help meet this aim.

Critics feel these arguments have been overstated, although most agree with the basic aims. But the current system doesn't meet these aims in an equitable or efficient way. The tax subsidies disproportionately benefit higher income earners, and the system will actually cost the government money through tax breaks and co-contribution payments rather than saving public funds.

HOW MUCH WILL I NEED TO SAVE EACH YEAR?

There's a range of factors that affect the answer to this question, such as the age at which you start saving, the return on your super investment and whether you have any time out of the workforce.

In a system where super is compulsory for most of the workforce, this question should really be, "How much will I need to save each year *above the compulsory contributions* to get that lump sum?"

The tables on the left show the amounts you would need to save per year to get three different income levels, assuming you retire at 65 and want an income that's 60% of your salary.

WHAT THE TABLES MEAN

First, use the figures in the tables as a guide only — look for the scenario closest to your own situation.

We have assumed a real rate of return of 4%. This is the amount you earn above the inflation rate. We haven't included the 15% tax on earnings within the fund (which effectively reduces the rate of return) or the potential tax on benefits.

Note also that amounts are expressed in today's dollars, which means you'll have to allow for your payments to increase to match inflation each year if your savings are not to go backwards.

What do the two sets of figures in each column of the tables mean? The first figure in each column is the **total amount** that needs to be paid into your super fund each year to get the various retirement incomes, regardless of where the money comes from. The figures in brackets are the **top-up contributions** — the part of the total you'll need to pay above the compulsory employer payments. In other words, they're the contributions *you* will have to make on top of your employer's contributions.

Note that your compulsory employee contributions and the government co-contribution are being phased in up to 2002 (see Table 1 on page 7). So the amount you'll have to top up each year with voluntary contributions will decline. In fact, for younger people who are starting their working life, the compulsory payments may more than cover their desired retirement income.

KEY LESSONS ABOUT YOUR SUPER NEEDS

The tables make clear that the age at which you start saving is critical. Someone who starts work in 2002 (when the full compulsory contribution kicks in) and works for an uninterrupted 40 years will be pretty well catered for by compulsory contributions. People who are halfway through their working lives are likely to be in a different situation. You may have to put in extra if you're a late starter on the saving scene.

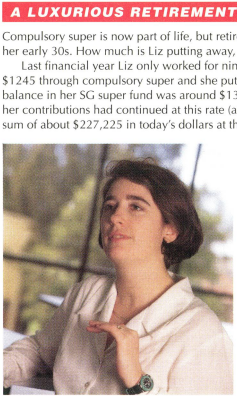
On the other hand, people who are close to retirement and are only now starting to save for super would have to save more each year than they earn after tax to achieve a retirement income of 60%! Obviously, you have match your aims with reality. For some people it may be more realistic to rely on the age pension than to start accumulating a small super sum late in their working life.

A second issue to keep in mind is the importance of fund performance. A difference in two percentage points can make a big difference in income in retirement. For example, in our scenarios, if the fund had achieved 6% rather than 4%, the amount you would have to contribute would be much less to get the same retirement income. This is an issue we'll look at in the next edition of CHOICE. ❑

A LUXURIOUS RETIREMENT?

Compulsory super is now part of life, but retirement is a long way off for Liz, who is in her early 30s. How much is Liz putting away, and what will she end up with?

Last financial year Liz only worked for nine months. Her employer contributed $1245 through compulsory super and she put $1875 into personal super. Her total balance in her SG super fund was around $1395, in her personal super about $9900. If her contributions had continued at this rate (and had earned 4%), she would get a lump sum of about $227,225 in today's dollars at the age of 65. This gives an annual retirement income of around $14,376. What does Liz think of this outcome?



"I'd definitely like more than that in retirement — for a start I'd like to travel. And since both my compulsory and voluntary contributions have substantially increased since last year, I'd hope this is achievable!"

If Liz was to aim for a retirement income of $25,000, she'd need annual contributions of about $6200. This amount almost matches what her employer will pay when the SG contributions are fully implemented, plus her new level of personal contributions. So Liz's retirement aims are not out of reach.

How reliable is your car?

Our annual car reliability survey tells you which makes and models have kept going most of the time and which ones have left their owners going nowhere fast.

UNFORTUNATELY FOR THE AUSTralian car industry's image, our survey found newer fully imported cars to be more reliable than locally manufactured or assembled cars. Again.

This suggests Australian car manufacturers and assemblers *still* need to lift their game if they wish to compete effectively against imported cars for reliability. And considering how many Australians have cars — the 1993 census estimated there are six vehicles registered for every 10 people in Australia — we can only guess how much more money might stay in Australia if local manufacturers came up with the goods.

As in our previous surveys, we wanted to find out which car models were more (or less) likely to leave you in the lurch. The results come from a questionnaire in the July 1995 issue of CHOICE, asking subscribers about their car's history of breakdowns in the previous 12 months. Cars in the survey were divided into three age groups:

- 1986 to 1988,
- 1989 to 1991,
- 1992 to 1994 (1995 cars wouldn't have had a full year's use).

LOCAL vs IMPORTED

Overall, **HONDA, MAZDA** and **SUBARU** produced the most reliable cars, with significantly fewer breakdowns than average — and they're all imported (see Figure 1). The **SUBARU Liberty** ranked top of all the models, with 88% of those bought between 1992 and 1994 having no breakdowns.

Comparing cars in the newest — and therefore, you'd hope, most reliable — age bracket, from 1992 to 1994, the **TOYOTA Camry4** was the most reliable Australian-made car in both this and the oldest (1986 to 1988) age group. The locally produced **FORD Laser KE-KH** was a good performer in the two youngest age groups (see Figure 2) .

Overall, some 39% of car owners in the survey had a breakdown or were off the road for repair during the year. Of the cars in the newest age bracket, only 22% of imported cars had breakdowns, compared to 33% of local models. However, local cars were more likely than imported cars to have been a fleet vehicle or to have travelled further over the 12 months reported on, and the harder usage may have had some bearing on reliability.

BUYING SECONDHAND?

If you're planning to buy a secondhand car, all three age groups of the **TOYOTA Camry4** and **Corolla/Seca** ranked very well when we asked people if they would buy the same model again. In specific age groups, over 90% of people were also very happy with their four to six-year-old **MAZDA 626**, and the **HOLDEN Commodore/Berlina/Calais V6 VN-VR** of the same age also scored well.

The **FORD Laser KE-KH** in this age group did well for not breaking down, although fewer **Laser** owners were prepared to buy the same car again — perhaps there's more to know about the **Laser** than its reliability.

As noted, **HONDA, MAZDA** and **SUBARU** had significantly fewer breakdowns than other makes, so they could be a good secondhand choice. Interestingly, **NISSAN's** reliability appears to have improved — its 1992-94 cars came equal top with these three makes for fewest breakdowns.

The **FORD Falcon/Fairmont/Ghia/Futura 6** could be a car to avoid secondhand: in all age groups in the survey it was significantly worse than average for breakdowns; it stood out as having more problems than average in most categories we asked about; it had the lowest proportion of owners satisfied with its reliability; and a comparatively low number (75%) of **XA-XF** owners would buy the same model again (the scores for this question ranged from 72% to 96% over all models — see Figure 5 on page 18).

Reliability by make and model

The percentages shown in Figures 1 and 2 relate to the number of cars of the particular make or model in our survey that didn't break down or need to be off the road for at least a day for repair. The black bars indicate how closely our survey results would be likely to match reality if we were able to survey all cars on the road. Statistically, the more responses we got for each make and model and the closer they got to 100% without breakdowns or repairs, the closer to reality the percentage our survey found is likely to be, and therefore the bar is shorter.

When comparing the cars for reliability it's important to look at these bars. As an example, if we compare the 1989 to 1991 makes, the percentage without breakdown in our survey for **MAZDA** was higher than for **SUBARU**, but because the 'reality' bars for these makes overlap each other, we can't say definitively that **MAZDA** is more reliable than **SUBARU** overall. On the other hand, if we compare **MAZDA** to **TOYOTA**, the bars don't overlap — so we can say with confidence that **MAZDA** is more reliable. The same goes for comparing models.

Numbers in brackets are the actual number of reports we received for each make or model.

Figure 1: Reliability of cars — by make

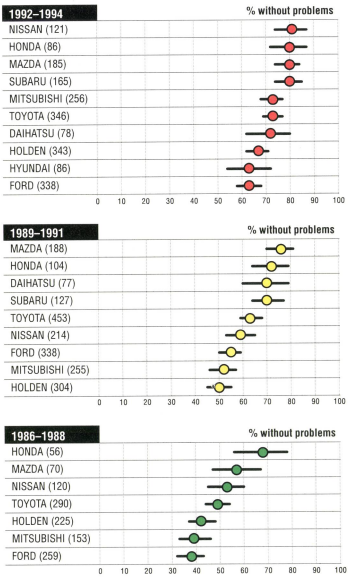
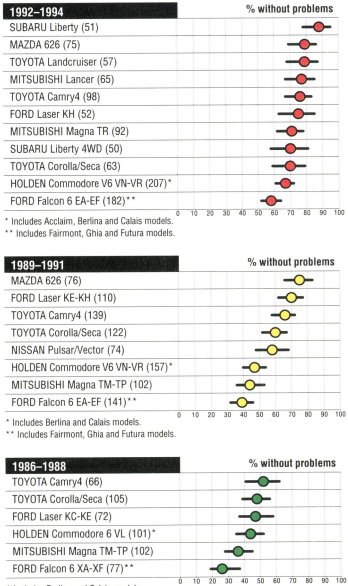


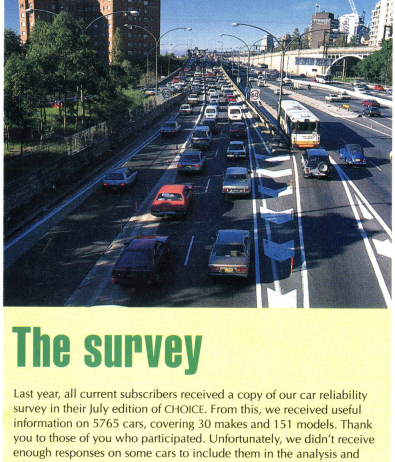
Figure 2: Reliability of cars — by model


1992–1994
% without problems
SUBARU Liberty (51)
MAZDA 626 (75)
TOYOTA Landcruiser (57)
MITSUBISHI Lancer (65)
TOYOTA Camry4 (98)
FORD Laser KH (52)
MITSUBISHI Magna TR (92)
SUBARU Liberty 4WD (50)
TOYOTA Corolla/Seca (63)
HOLDEN Commodore V6 VN-VR (207)*
FORD Falcon 6 EA-EF (182)**
0 10 20 30 40 50 60 70 80 90 100
1989–1991
% without problems
MAZDA 626 (76)
FORD Laser KE-KH (110)
TOYOTA Camry4 (139)
TOYOTA Corolla/Seca (122)
NISSAN Pulsar/Vector (74)
HOLDEN Commodore V6 VN-VR (157)*
MITSUBISHI Magna TM-TP (102)
FORD Falcon 6 EA-EF (141)**
0 10 20 30 40 50 60 70 80 90 100
1986–1988
% without problems
TOYOTA Camry4 (66)
TOYOTA Corolla/Seca (105)
FORD Laser KC-KE (72)
HOLDEN Commodore 6 VL (101)*
MITSUBISHI Magna TM-TP (102)
FORD Falcon 6 XA-XF (77)**
0 10 20 30 40 50 60 70 80 90 100

* Includes Acclaim, Berlina and Calais models.
** Includes Fairmont, Ghia and Futura models.

* Includes Acclaim, Berlina and Calais models.
** Includes Fairmont, Ghia and Futura models.

* Includes Berlina and Calais models.
** Includes Fairmont, Ghia and Futura models.



The survey

Last year, all current subscribers received a copy of our car reliability survey in their July edition of CHOICE. From this, we received useful information on 5765 cars, covering 30 makes and 151 models. Thank you to those of you who participated. Unfortunately, we didn't receive enough responses on some cars to include them in the analysis and tables; we restricted the lists of makes and models reported on to those with 50 or more responses in an age group. Not all makes or models in Australia therefore appear in our results.

Our questionnaire asked motorists how often their car had broken down (that is, the car could not be driven at all or not driven safely), and how many times it had been unavailable for use due to repairs for at least one day in the previous 12 months. We specifically excluded breakdowns or repairs which were the result of an accident, regular maintenance or vandalism.

Overall, the survey gathered information about:

- The relative reliability of different makes and models of cars.
- Common problems across makes and models.
- Owner satisfaction with the reliability of their car.
- People's willingness to buy the same make or model again.

As you'd expect, cars become less reliable as they grow older. This is why we excluded cars over 10 years old, because their reliability is likely to be affected by factors other than their design and manufacture. Cars less than one year old and relatively uncommon makes were not included either.

The cars reported on in our survey were compared with the 1993 Australian motor vehicle census and were found to be generally comparable to the whole car population in terms of the spread of makes.

We also compared the type of people who responded to the survey with the NSW Roads and Traffic Authority averages for car registrants and Australian Bureau of Statistics figures, looking at distribution of age, sex, income and location. We found our survey participants to be fairly representative, although our sample was generally more highly educated, more affluent and more likely to be living with a partner.

Car problems

APART FROM BREAKDOWNS, THE SURVEY ALSO examined other specific problems people had with their cars.

These included anything that stopped working or wasn't working as intended — some of which led to breakdowns, while others caused inconvenience, such as faulty windscreen wipers. See *Problem areas*, right, for a list of which makes and models suffered what problems — particularly useful to know if you're planning to buy a used car.

FORD and **HOLDEN** topped our list again for having more problems on average than any other make.

Throughout all age categories, the **FORD Falcon/Fairmont/Ghia/Futura 6** was more likely to experience difficulties of some sort, particularly brakes, steering, suspension, rust, the ignition and exhaust systems, and engine cooling. Older models also had problems with their automatic transmission (1989-91) and air conditioning (1986-88). Probably as a reflection of this, more people were dissatisfied with the reliability of these models than any other car.

Not all **HOLDENs** in the survey had a significant number of problems, but the **Commodore/Berlina/Calais** models made between 1986 and 1991 had difficulties with their computerised engine management, the '89–'91 models with their exhaust systems, and the '92–'94 models with their brakes.

COMMON FAULTS

Naturally, the older the car, the greater the number of problem areas. Here are the most common across all age groups:

- **Body exterior:** This includes paintwork, glass, mirrors, locks, leaks and so forth, which caused a large percentage of the problems reported in all age groups.
- **Brakes:** This was an area of concern for cars in the two older categories. The younger 1992 to 1994 age group had fewer brake problems, but the number reported is still high given the relative youth of the cars.
- **Interiors** (seats, dashboard and general trim) were a problem in 13–14% of cars across all three ages, but that made them a surprisingly high cause of annoyance in the newest age group — in the top five problem areas along with body exterior, brakes, steering and 'other electrics'.
- **'Other electrical problems':** This was the most commonly reported problem for cars in the 1986 to 1988 and 1989 to 1991 categories. It includes electrical problems other than those related to the ignition system, such as lights, radio, wipers, etc.
- **Steering:** This caused almost as many difficulties as the body exterior category, although less so for cars in the 1992 to 1994 age bracket.
- **Air conditioning**, the **exhaust** and **ignition systems, engine cooling** and **rust** were noticeably worse in the oldest group of cars.

Use Figure 3 when you're buying a secondhand car, to find out in which areas cars of a particular age are likely to have problems, and which models are more or less likely to suffer from these problems.

The 'Average' column gives the overall percentage of cars in our survey that were reported to have a problem in the specified area — you can compare this to the number in brackets after the model name, which shows the percentage of that model which had the problem. The models listed are those with significantly more or less than the average number of problems in that area.

Figure 3: Problem areas by age groups

Significantly more than average Significantly fewer than average

Problems	1992–94 (A) Average	1992–94 (A) Models with significantly fewer/more problems than average	1989–91 (B) Average	1989–91 (B) Models with significantly fewer/more problems than average	1986–88 (C) Average	1986–88 (C) Models with significantly fewer/more problems than average
Body exterior	16%		18%		24%	
Brakes	13%	Toyota Corolla / Seca (2%) Holden Commodore V6 VN-VR (29%)*	20%	Ford Falcon 6 EA-EF (31%)**	25%	
Computerised engine management system	4%		7%	Ford Laser KE-KH (0%) Toyota Corolla / Seca (1%) Toyota Camry4 (1%) Holden Commodore V6 VN-VR (17%)*** Nissan Pulsar / Vector (23%)	6%	Holden Commodore 6 VL (13%)***
Driveline	3%		5%		9%	
Engine (cooling)	4%	Ford Falcon 6 EA-EF (8%)**	12%	Ford Laser KE-KH (1%) Toyota Camry4 (4%) Ford Falcon 6 EA-EF (29%)**	21%	Ford Laser KC-KE (7%) Ford Falcon 6 XA-XF (49%)**
Engine (mechanical)	4%		11%	Ford Falcon 6 EA-EF (21%)**	16%	
Exhaust system	3%		13%	Ford Laser KE-KH (2%) Toyota Camry4 (5%) Ford Falcon 6 EA-EF (23%)** Holden Commodore V6 VN-VR (24%)***	24%	
Ignition system	5%		10%	Mazda 626 (1%)	18%	Toyota Camry4 (6%) Ford Falcon 6 XA-XF (31%)**
Interior	13%		14%	Mazda 626 (4%)	13%	
'Other electrics'	15%		21%		30%	
Steering	13%	Ford Falcon 6 EA-EF (28%)**	20%	Mazda 626 (7%) Ford Falcon 6 EA-EF (33%)**	24%	Ford Falcon 6 XA-XF (49%)**
Suspension	6%	Ford Falcon 6 EA-EF (19%)**	9%	Ford Falcon 6 EA-EF (21%)**	13%	Ford Falcon 6 XA-XF (30%)**
Rust	1%	Ford Falcon 6 EA-EF (4%)**	4%		18%	Toyota Camry4 (6%)

(A) 992 cars. (B) 921 cars. (C) 523 cars. * Includes Acclaim, Berlina and Calais models. ** Includes Fairmont, Ghia and Futura models. *** Includes Berlina and Calais models.

JAPANESE CAR PARTS PRICY

Buying an unreliable car is becoming increasingly expensive — especially if it's from Japan.

Due to the deteriorating exchange rate between the Japanese yen and Australian dollar, the cost of buying spare parts made in Japan has increased significantly. In the second half of 1995, prices went up 7%.

This means if you have an unreliable car that is either fully imported from Japan or locally assembled from parts made in Japan, your bill for repairs is likely to be higher than if you were repairing a comparable European car, for example.

Car insurance companies have been feeling the pinch for some time. The NRMA's manager of spare parts, Anthony Boddy, says the cost of parts frequently used in repairing smashed cars has increased more than 25% in the past four years. Victoria's RACV said it too is paying the price of the extreme exchange rate.

Currently, the majority of recent-model cars on Australian roads originate from Japan, including Mazda, Honda, Subaru, Daihatsu and some Mitsubishis, Nissans and Toyotas. They nearly all rely on imported parts from Japan.

Spare parts generally aren't made in Australia even for models made here, so consumers are paying high prices for imported spares. This detracts from the benefit of having bought a cheaper Australian-made car in the first place.

Honda and Mazda, which have only ever imported their cars and relied on imported parts, are now starting to use locally sourced parts as a means of decreasing costs for consumers, and so keeping their customer base.

All of this reinforces the need for reliable Australian-manufactured cars. Our survey noted that few still compare well for this with imports — but if they did, you wouldn't be hamstrung by such outside forces as exchange rates when you purchase or repair your car.

Buying the same car again

We asked the people in our survey whether they would consider buying the same make or model of car again. For each model, we've added the results from all age groups where the manufacturer told us the essential mechanical design of the car hasn't changed over the years. Numbers in brackets are the number of reports we received for each make or model.

Reliability isn't the only reason people consider buying the same car again, but our results showed a reasonable correlation between the two and indicate which models motorists were happy with.

Figure 4: Would buy the same make again

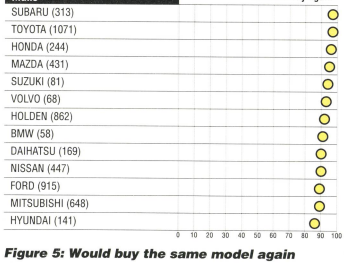
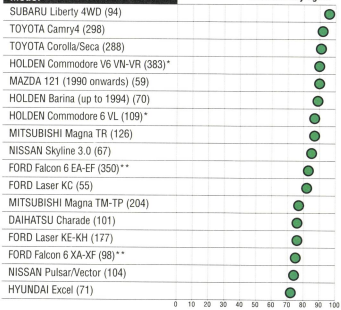


Figure 5: Would buy the same model again


Model
% would buy again
SUBARU Liberty 4WD (94)
TOYOTA Camry4 (298)
TOYOTA Corolla/Seca (288)
HOLDEN Commodore V6 VN-VR (383)*
MAZDA 121 (1990 onwards) (59)
HOLDEN Barina (up to 1994) (70)
HOLDEN Commodore 6 VL (109)*
MITSUBISHI Magna TR (126)
NISSAN Skyline 3.0 (67)
FORD Falcon 6 EA-EF (350)**
FORD Laser KC (55)
MITSUBISHI Magna TM-TP (204)
DAIHATSU Charade (101)
FORD Laser KE-KH (177)
FORD Falcon 6 XA-XF (98)**
NISSAN Pulsar/Vector (104)
HYUNDAI Excel (71)
0 10 20 30 40 50 60 70 80 90 100

* Includes, Berlina, Calais models. ** Includes Fairmont, Ghia, Futura models.

IMPORTED OR LOCAL?

■ Car makes which import all models sold in Australia:

Alfa Romeo	Jaguar	Renault
Audi	Jeep	Rover
BMW	Lada	Saab
Citroen	Land Rover	Subaru
Daewoo	Lexus	Suzuki
Daihatsu	Mazda	Volkswagen
Eunos	Mercedes-Benz	Volvo
Honda	Peugeot	
Hyundai	Range Rover	

■ Car makes which import some models and assemble or manufacture others in Australia. (Models listed are an indication only; the list is not necessarily complete.)

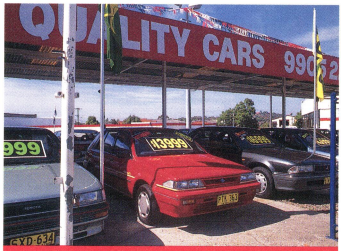
Ford
Imported: Capri, Festiva, Maverick, Raider, Telstar (from 1984), Laser (November 1994 on).
Assembled or manufactured in Australia: Fairlane, Falcon/Fairmont/Futura/Ghia, Meteor GC, Laser (up to end of October 1994).

Holden
Imported: Barina, Calibra, Gemini, Jackaroo.
Assembled or manufactured in Australia: Apollo, Astra, Camira, Commodore/Acclaim/Berlina/Calais VL and V6 VN-VR, Nova, Statesman.

Mitsubishi
Imported: Cordia, Colt, Galant, Lancer, Nimbus, L300 Starwagon, Pajero.
Assembled or manufactured in Australia: Magna, Sigma, Verada V6.

Nissan
Imported: Bluebird (1993 on), Exa, Maxima, Navara, Pathfinder, Patrol, Serena, Skyline (up to 1986), Pulsar (from November 1992).
Assembled or manufactured in Australia: Pulsar (up to October 1992), Pintara, Skyline (1986 to 1990).

Toyota
Imported: Celica, Cressida, Hi/Lite-ace, Landcruiser, Paseo, RAV 4, Supra, Tarago, 4 Runner.
Assembled or manufactured in Australia: Camry4, Camry V6, Corolla/Seca, Corona, Lexcen.



Use this CHOICE article when you're buying a secondhand car to help pick a model with a good track record for reliability.

Pay TV

Pay TV is being marketed as 'the home entertainment revolution' and 'the difference between a box in the lounge room, and a window to the world'. At its most basic, it means more television channels — and lots of them.

FOR A MONTHLY FEE YOU CAN subscribe to a bundle of channels, each one specialising in a format like movies, sport, children's programs or documentaries. And because of legislated licence conditions, pay TV is free of advertisements until mid 1997.

In our May 1995 issue, we gave a general overview of pay TV. Since then the market has grown from one major service provider to three. In this article we concentrate on the main pay TV channels and what's available on them.

HOW IT WORKS

The key to pay TV is that to get it you must sign a contract with a provider and pay a regular fee to receive the service. The channels are only available through a special piece of equipment, called a set-top box or decoder. This is either linked to a satellite dish or a microwave antenna on the exterior of your home, or to cable in your street.

Owned, installed and maintained by the pay TV service providers, the set-top box comes with a remote control and programmable features such as channel and program blocking (for parental control over children's viewing). Foxtel's also uses a smart card or 'viewing card'which contains your subscriber details and programming preferences.

Despite all the hype, initially the cable services in Australia are only transmitting analogue television signals. The picture and sound are fine, but the full promise of the 'information superhighway'— hundreds of channels — can only be delivered by digital technology.

Audiophiles may be disappointed that the first generation of cable set-top boxes only has a mono audio output (RCA socket). However, if you have a stereo TV and VCR you can listen to and record stereo through their capabilities. Unlike ordinary TV, though, with pay TV you can't watch one pay channel while recording another.

WHO ARE THE SERVICE PROVIDERS?

Although the Australian Broadcasting Authority has issued licences for over 1000 pay TV channels, just three major service providers have so far emerged.

■ **Galaxy:** The first cab off the rank, Galaxy was delivering its Premier Sports Network (now called Fox Sport) to subscribers as early as January 1995. At first Galaxy channels were delivered only by microwave technology, known as MDS (multipoint distribution system), but a deal has resulted in Galaxy providing most of its channels to Foxtel for inclusion in the Foxtel cable service as well.

Galaxy and its franchisees have licences to deliver MDS channels to areas which include 6.2 million households. The network was available to 2.3 million by November 1995. In addition, 10 Galaxy channels can be received by satellite across Australia.

■ **Foxtel:** Using Telstra's hybrid fibre/

COMPETITION POLICY: WHEN IS OPEN ACCESS NOT OPEN ACCESS?

Even though there is the potential for hundreds of channels and the government's stated policy is one of 'open access' for service providers, the new pay TV industry is really only a $2\frac{1}{2}$ horse race, with Galaxy, Foxtel and Optus Vision dominating the delivery systems.

The government has given the carriers Telstra and Optus and their associates (Foxtel and Optus Vision) a two-year exemption from requirements under telecommunications law to provide network access on fair commercial terms to any other competing service providers.

coaxial cable, Foxtel is now competing head-to-head with Optus Vision in the more densely populated areas of Australia. At the time of writing, Australia's new competition regulator, the Australian Competition and Consumer Commission (ACCC) was considering merger proposals between Galaxy and Foxtel.

Whether or not this goes ahead, Foxtel hopes to provide pay TV to four million cabled households by 1999.

■ **Optus Vision:** The first cable operator in Australia, Optus Vision uses its own hybrid fibre/coaxial cable network.

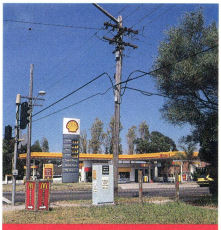
Optus Vision hopes to provide pay TV and other services to three million households in the next two years. It also has plans to offer a satellite service after the government's policy of open competition takes effect in July 1997.

DELIVERY OPTIONS

■ From a technical viewpoint, **hybrid fibre/coaxial cable** is the best system because it has the capacity to deliver a vast number of channels with virtually no interference. Telstra cable is mostly underground and Optus Vision mostly overhead, using existing power poles.

■ **Satellite** offers high-quality signals and coverage in most rural and remote areas, but is currently limited by regulation and technology to 10 broadcast channels.

■ **Microwave signals** rely on line-of-sight with transmission points and are therefore of limited use over long distances and in difficult terrain.



Optus Vision's overhead cables have met with considerable opposition — but no matter what local councils say, federal law says they can go ahead.

WHAT'S ON OFFER

For details of the channels offered and their costs, see the profiles on pages 22 and 23.

All services offer some 24-hour channels, but programs can be repeated often, even throughout the same day. You can buy a bundle ranging from eight satellite to more than 25 cable channels (the latter includes the free-to-air channels). Both the cable services retransmit the free-to-air TV channels and Optus and Galaxy provide a home-shopping channel, as well as optional channels.

WILL YOU HAVE TO PAY TO SEE YOUR FAVOURITE PROGRAMS?

The two most competitive areas of pay TV programming are movies and sport.

Like the commercial networks, pay TV operators buy most of their movies from the major Hollywood film studios. The screening rights to movies are sold according to a process called 'windowing'. Cinemas have an exclusive first-release right, generally followed six months later by video stores. Pay TV operators are negotiating deals which give them an exclusive 'window' of up to one year, after video release but before free-to-air TV.

Legislation gives Australia's communications minister the power to block pay TV operators from acquiring the exclusive rights to events of national importance or cultural significance which, in her or his opinion, should be available free to the general public.

The Australian Broadcasting Authority (ABA) administers this by monitoring a list which includes high-profile sporting events like motor racing, cricket, Australian rules and rugby league.

Once the free-to-air networks have secured first-run rights for this type of event, the pay TV operators can sign agreements for other secondary rights. Optus Vision, for example, has exclusive cable rights to Australian Rugby League, Australian Football League, some Australian cricket and many other

MIXED REACTIONS

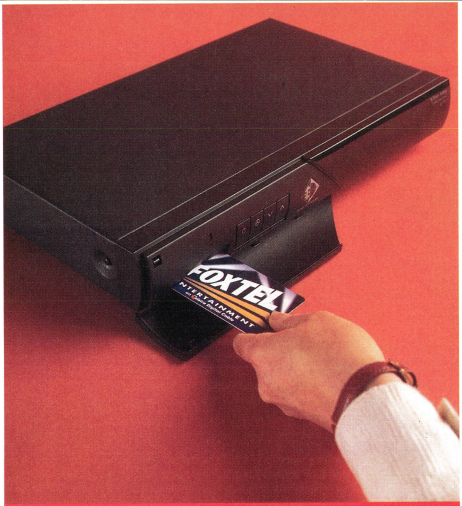
Julie R and Richard S are both busy professionals who share a rented house in a Sydney suburb. Neither of them had considered pay TV until just before Christmas in 1995 when, as Julie says, "A man knocked on the door and told me about the Foxtel 'special offer' of $20 for connection and your money back after the first month if you didn't like it."

Julie had enjoyed 54 channels of pay TV in Bermuda, where she lived for two years. By comparison, she thinks Foxtel is lacking in the area of good new-release films: "*Showtime* is pretty good but the other movie channels are awful," she says.

Julie still watches free-to-air TV, mainly for tennis, cricket and English football, and a big plus is that before the cable connection, reception of the five free-to-air channels was very poor in their area.

Richard watches *Showtime* for movies and *Discovery* for documentaries, but says if he had been home the day the salesman called, he would have argued against it. "Until they discovered a junction box in the nature reserve opposite the house, Telstra was prepared to cable the house from behind by digging a metre-deep trench through solid sandstone, all for $20," he said.

But what really annoys Richard is his impression that overall the content is "very American, like cultural imperialism". From his perspective, out of all the channels to choose from, "Five you already get and another eight you just wouldn't watch."



What the Foxtel set-top box and smart card or 'viewing card' look like.

local sports including soccer, rugby union, swimming and athletics.

Made-for-television programs are where you might expect the pay TV operators to steal some of commercial TV's thunder. But Foxtel's Director of Corporate Affairs and Strategic Planning Warren Lee says although theoretically pay TV networks can compete for rights to popular 'first-run' programs now seen on free-to-air TV, this would be unlikely because the commercial TV networks are able to pay more (see *The scale of the industry*, right).

However, with the second-run rights for popular programs like *The X-Files*, *The Simpsons* and *NYPD Blue* in the bag, Foxtel doesn't rule out competing in future with the networks for first-run rights.

STRONGER STUFF

Under an Act of Parliament, the Broadcasting Services Act 1992, X-rated programs are not allowed to be broadcast on pay TV. Also under this Act, R-rated programming can only commence if Parliament is satisfied research indicates that to do so would conform with prevailing community standards.

Although ABA research conducted in 1993 indicated 82% of Australians agreed that adults should have the option of watching R-rated material on pay TV, it has not been approved by Parliament.

The ABA also did research to satisfy itself that set-top boxes could be technically disabled to block access by children to such material.

AUSTRALIAN CONTENT

The commercial television industry is required by law to devote 50% of transmission time between 6 am and midnight to Australian programs. There is no such requirement for pay TV. However, with pay TV channels that mostly show drama (such as the movie channels), the operators are required to spend 10% of their program expenditure on Australian programs.

It's too early to say what this will translate to in terms of screen time and quality, but Jock Given, from public advocacy organisation the Communications Law Centre, estimated that in October 1995 Australian programs amounted to just 5.3% of transmission time on pay TV.

INDUSTRY SELF-REGULATION

Broadcasting law also requires the pay TV industry to develop and implement a code of practice. The Confederation of Australian Subscription Television (CAST) will soon finalise its code covering issues like program classifications (G, PG, etc), complaints handling, billing, fault repair, privacy and credit management.

The scale of the industry

Galaxy is the only publicly listed pay TV provider and therefore the only one obliged by law to publish details such as debt, equity and profit — and the magic number in this industry, the number of subscribers.

It's a rapidly changing business landscape. According to media analyst Roger Colman from Bankers' Trust, in late January 1996 there were around 100,000 subscribers to Galaxy's MDS system and an estimated combined total of 15,000 to 20,000 cable subscribers (Foxtel and Optus Vision).

New subscriptions were growing for MDS at a rate of 5000 to 6000 a week, while new cable subscriptions were around 2000 per week.

Mr Colman says total subscriber numbers will reach around one million households in three to four years, by which time the industry will be earning around $650 million a year in revenue ($479 m from subscriptions and $171 m from advertising, which will be allowed after 1997). He estimates the industry's shared debt by that time will be in the vicinity of $2-3 billion.

For the cable operators the extra dollars needed to offset the debt and earn profit will be picked up by selling us telecommunications and interactive services.

Although it will no doubt draw audiences away from commercial TV, eroding that industry's profits, pay TV, at least in the short term, will remain an infant compared to its older, established cousin. The Australian commercial TV industry reaches six million households, and the latest figure for broadcasting revenue (drawn from advertising in 1994-95) was $2.36 billion, resulting in a $406 million profit.

COMPARING THE SERVICES

GALAXY

OWNERS

Galaxy is the trading name of Australis Media, which has agreements with Foxtel, a cable pay TV operator, and Continental Century, a satellite pay TV licence holder, to supply programs and services.

CHANNELS OFFERED

Showtime, Nickelodeon (Nick at Nite), Discovery, The Comedy Channel, Fox Sports (formerly Premier Sports Network), Red, Encore, TV1 and Arena.

■ **'Tier' channels** (additional fees per channel): World Movies, Teleltalia and New World TV.

■ **Bonus channels** (additional free channels in some areas): BBC World, CNBC Asia and The Value Channel.

COST

■ Installation: $199, plus an additional charge (from $75 to $125) for homes of more than two storeys. Additional outlets $99 each.

■ Monthly subscription: $49.95 for the core Galaxy channels, plus $29.95 per month for each additional outlet.

For the 'tier' channels:

— World Movies: $6.95 per month.

— Teleltalia: $10 per month.

— New World TV: $10 per month.

Existing subscribers won't pay these rates until June 1.

THE NETWORK

Either microwave or satellite (see *Delivery options*, page 20). When you subscribe you receive a decoder (set-top box) and a remote control. Other equipment includes either a microwave antenna or a satellite dish, mounted on the outside of your house.

AREA AVAILABILITY

Primarily available in Adelaide, Brisbane, Melbourne, Perth and Sydney plus the ACT, but increasingly in many other regional areas.

CONTRACTS

The service contract can be terminated by Galaxy immediately (subject to certain conditions) or by you after providing one month's notice in writing.

The equipment installed by Galaxy remains its property and will be maintained and repaired by the company, except for damage caused by you through mistreatment or improper use. Taking out insurance against loss of or damage to the equipment is your responsibility.

In signing the contract, you consent to having your name, address and other personal information being included in Galaxy's mailing lists, unless you notify the company otherwise in writing.

FOXTEL

OWNERS

A joint venture between the Telstra Corporation and Rupert Murdoch's News Corporation. Foxtel also transmits all the Galaxy channels under an agreement with its operator, Australis Media.

CHANNELS OFFERED

Showtime, Nickelodeon (Nick at Nite), fx, Fox, TNT, The Cartoon Network, Discovery, The Comedy Channel, Fox Sports (formerly Premier Sports Network), Red, Encore, TV1, Arena, World Movies, BBC World, Sky News, CNN, Asia Business News, CMT, Foxtel Weather, Bloomburg and Foxtel Program Guide.

COST

■ Installation: $19.95. Extra outlets installed at the same time as original installation are $9.95, otherwise they're $29.95.

■ Monthly subscription for all channels: $39.95, plus $9.95 for each additional outlet.

THE NETWORK

Foxtel is delivered through Telstra's broadband cable network. To connect to the service, you need to be in an area where Telstra's cable has been laid.

When you subscribe to Foxtel, a technician will install the system. You will receive a viewing card (a smart card), a decoder (a set-top box) and a remote control (see the photo on page 21). The viewing card, which contains your subscriber information, plugs into the decoder and 'enables' the system.

The installation fee covers connection to the network and setting up the decoder to work with your television and/or video.

AREA AVAILABILITY

Foxtel says that within three and a half years, the service will be able to reach four million homes. It's currently available in parts of Sydney, Melbourne, Brisbane and the Gold Coast.

OTHER SERVICES

Foxtel is primarily concerned with the delivery of TV programs. On the other hand, Telstra is currently trialling interactive services, which it may offer in the future. It also plans to offer telephone services through the network.

CONTRACTS

The service can be terminated at any time at no extra charge. The set-top box, viewing card and remote control must be returned to Foxtel.

The contract allows Foxtel, Foxtel Management, Telstra and Telstra Multimedia to use or disclose subscriber information for marketing, product development and other commercial purposes unless you notify them otherwise.

OWNERS

The company is a joint venture between Optus Communications, Continental Cablevision (a US cable TV company), Publishing and Broadcasting (Packer) and the Seven Network.

CHANNELS OFFERED

Visions 'pack': TNT, CNN, The Cartoon Network, WeatherVision, Horizon Learning, MusicVision, The Value Channel, CMT, The Disney Channel, Sky News, LocalVision, Video Wall and ChannelVision.
Sports Fan: Visions pack plus Sports Australia, Sports AFL, Sports ESPN, and a 'special events' sports channel.
Movie Magic: Visions pack plus The Movie Network, The Movie Network 2 and Movie Greats.
Deluxe: all the above channels.

COST

- Installation: $29.95
- Four packages offered:

Visions: $25 per month.
Sports Fan: $34 per month.
Movie Magic: $34 per month.
Deluxe (all three packs): $39.95 per month.
- Additional outlets: $10 per month.

THE NETWORK

Optus Vision's service is through its own broadband cable network, which uses overhead cabling on existing power poles.

AREA AVAILABILITY

Optus Vision says it will be able to reach 2.3 million homes by September this year. At present it's available in parts of the north and west of Sydney, and parts of the south, south-east and north of Melbourne. It should be available in Brisbane and Adelaide by the end of this year.

OTHER SERVICES

Optus Vision plans to offer local, interstate and international phone calls through its network "at competitive rates".

It also intends to provide Internet links for computer users, and interactive services such as home shopping, home banking and video-on-demand.

CONTRACTS

The service can be terminated at any time. All the equipment is the property of Optus Vision and it can charge you for damage. Insurance for the equipment is your responsibility.

The contract allows Optus Vision to disclose personal subscriber details to a credit reporting agency and for information about the supply of services to you to be shared among companies associated with Optus Vision.

The channels

Arena: Drama and comedy, with shows such as *Hill Street Blues, Twilight Zone* and *Brookside.*
Asia Business News: News and information from Asia.
BBC World: A news channel produced by the BBC.
Bloomburg: International business news and information.
ChannelVision: The Optus Vision program guide.
CMT: A country music channel produced in Nashville.
CNBC Asia: 24-hour news and business.
CNN: International 24-hour news.
Discovery: Documentaries from around the world.
Encore: Movies from Universal, 20th Century Fox, Paramount and Colombia Tri-star movie studios.
Fox: TV shows (already shown on free-to-air), such as *The Simpsons, Married with Children* and *Beverley Hills 90210.*
Fox Sports (formerly **Premier Sports Network):** Sports events from Australia and around the world.
Foxtel Program Guide: What's on Foxtel.
Foxtel Weather: Local and national weather reports.
fx: 'Retro' television during the day (including *Batman, MASH* and *Lost in Space*), Bill Collins' cinema 'classics' at night.
Horizon Learning: Education channel.
LocalVision: Programs produced by community groups.
Movie Greats: 'Classic' films.
MusicVision: A popular music channel with an Australian flavour.
New World TV: Chinese news, sports, movies, entertainment.
Nickelodeon: Children's television during the day, 'classic' TV at night (**Nick at Nite**).
Red: Music channel with local and international music clips.
Showtime: A movie channel showing recent releases.
Sky News: An Australian 24-hour news service.
'Special events' sports : A sports channel showing, for example, the cricket World Cup.
Sports AFL: Live AFL, replays and archival footage.
Sports Australia: Australian sport, including rugby league and union, cricket, soccer, swimming and athletics.
Sports ESPN: International sport, including tennis, American football, basketball, soccer, golf, baseball, ice hockey, motor racing.
Teleltalia: Italian news, sports, movies and entertainment.
The Cartoon Network: Cartoons including *The Flintstones, The Jetsons, Popeye, Yogi Bear, Bugs Bunny* and *Daffy Duck.*
The Comedy Channel: Australian and international comedy.
The Disney Channel: Disney programs and movies.
The Movie Network: Movies from the likes of Warner Bros, Disney, Touchstone, Village Roadshow and MGM-UA.
The Movie Network 2: Repeats from The Movie Network.
The Value Channel: Home shopping.
TNT: General entertainment channel featuring 'classic' movies, made-for-TV programs and children's programs.
TV1: Reruns of old television series, such as *I Love Lucy, Who's the Boss* and *Knight Rider.*
Video Wall: What's on all Optus Vision channels at the time.
WeatherVision: Australian and world-wide weather.
World Movies: Foreign-language movie channel.

Laundry detergents: update

Once again we found that, though the big-name brands scored best in our scientific tests, to the naked eye some of the cheaper products washed just as well.

SINCE OUR LAST LAUNDRY detergent test in August 1995, a number of new and reformulated products have hit the supermarket shelves, so we decided to see how they all scrubbed up. In this updated report, 27 of the 75 detergents included were new or reformulated products.

We chose detergents suitable for washing in cold water, because using cold water is cheaper, better for the environment and, as our tests have shown, practically as effective as warm-water washing.

WHICH WASH WHITEST?

Our spectrocolorimeter was able to measure exactly how much dirt each detergent removed from each of our test swatches. The verdict: if you want one of the detergents that really wash whitest, you can't go past the powders from the big-name brands, such as **OMO-MATIC** and **COLD POWER MATIC** (for front loaders) and **COLD POWER, DRIVE, DYNAMO, FAB TOTAL, OMO** and **OMO FREE** (for top loaders).

When we looked closely at the swatches with the naked eye, we could pick differences in cleanness where the washing scores varied by more than 6%. So among the top 25 performers for top-loading machines in our test — whose washing scores were in the 6% range of 88-93% — none was clearly whiter than another to the eye.

However, we think most people would be satisfied with the performance of any of the detergents that scored 78% or more. Below this score the test swatches were visibly dirtier than with the best performers.

VALUE FOR MONEY

The big-name brands may measurably produce the cleanest wash, but they don't offer best value for money.

If you want a detergent that will make your wash look just as clean as those at the very top of our list, but is more economical, then **FIRST IN VALUE Heavy Duty** powder lives up to its name, giving a clean result at only 26 cents a wash — far cheaper than, say, **SURF** powder (52 cents), which scored only 1% higher. **RADIANT XL** powder concentrate, costing 29 cents a wash, is also a good low-cost performer.

If price is more important to you than getting your washing whiter than white, you could choose from still cheaper brands that produce relatively clean results (a score of 78% or more) — for example, **SPREE ULTRA** powder concentrate (16 cents a wash) and **PLUS** liquid (19 cents). Also check your supermarket for specials.

FOR FRONT LOADERS

Of the three front-loader detergents we tested, both **OMOMATIC** and **COLD POWER MATIC** washed well and provided similar value for money. The **DOMINANT** front-loader powder concentrate, on the other hand, didn't give good results, so we can't recommend it, even though at 24 cents a wash it's considerably cheaper than the other two powders.

Only products designed specifically for front loaders were tested in front-loading machines. However, many top-loader detergents are labelled as also being suitable for front loaders. You could try those which scored well in our top-loader tests and were also relatively cheap, such as **CASTLE** and **FIRST IN VALUE Heavy Duty** powders, or **BIO-ZET, HOME BRAND** and **RADIANT XL** concentrated powders. They cost around 20 cents less per wash (in a top loader) than the **OMOMATIC** and **COLD POWER MATIC** — and you would save still more in a front loader, because you probably wouldn't need to use as much.

WHICH TYPE WASHES BEST?

For the first time in our tests powder concentrates and liquid detergents outnumbered conventional powders.

However, as in previous tests, traditional powders were ahead of concentrates at the top of the list, though plenty of the latter scored in the top 88-93% range. Powders generally did better than liquids, particularly liquid concentrates — none of those achieved a washing score of 88% or better. The best-scoring liquid was **DYNAMO**, while a good-value one is **FIRST IN VALUE Heavy Duty**.

Concentrates tend to cost less per wash and are better for the environment than standard detergents, because they have fewer chemical fillers, less is used per wash and they need less packaging.

LUX soap flakes and **SUNLIGHT/VELVET** soap powder also produced good results. However, we don't recommend using soap products for everyday machine washing (particularly if you live in a hard-water area), because soap residue may build up on your clothes. Over time, soap scum could also clog your washing machine. You can reduce this problem if you alternate the soap product with a synthetic detergent or use it with washing soda.

PHOSPHATES

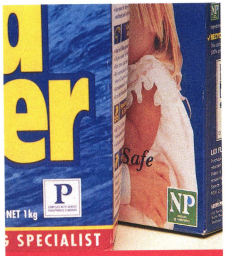
Phosphates (which contain phosphorus) are used in laundry detergents to soften the water and help keep extracted dirt from being redeposited onto your washing.

But high levels of phosphorus can contribute to excessive growth of blue-green algae in inland waterways, which can destroy aquatic life and also be hazardous for animals and humans.

You can now buy detergents labelled with an 'NP' symbol, which means they contain no phosphorus or only up to 0.5%. A 'P' symbol shows they contain up to 5% phosphorus. However, this doesn't necessarily mean the manufacturer has taken steps to reduce phosphate levels — detergents that don't use the 'P' label could easily contain about the same amount.

About half the products we tested were phosphate-free — but almost half of those had unsatisfactory washing scores.

Particularly if you live in an inland area where treated household waste and sewage provide nutrients when they're pumped into rivers, it's better to choose a phosphate-free detergent or one with a low phosphate level. The *Low or no phosphorus* column in the table overleaf gives details for each detergent. It also makes sense to choose one that did well in our tests. **BIOZET** powder concentrate fits the bill for both criteria, and it's also fairly cheap.



Look for the new 'NP' labelling to help you spot detergents containing little or no phosphate.

GREEN WASHING

None of the products marketed as a 'green' detergent was a top scorer in our tests. Only **BUSHLAND**, **GREEN CHOICE** and **DOWN TO EARTH** concentrated powders produced satisfactory results.

Detergents promoted as being green aren't in fact necessarily better for the environment than other products — unless the label explains why they're better it may just be a marketing gimmick.

If you want to reduce the environmental impact of your washing, use cold water, wash only when you have a full load, choose a concentrated detergent and don't use more than the recommended amount.

For more information about what's in your laundry detergent, along with some washing tips, refer to CHOICE, August 1995.

The top-performing and best-value products in our test — see below for details.

TOP PERFORMERS

■ For front loaders

OMOMATIC Powder

COLD POWER MATIC Powder

■ For top loaders

COLD POWER Powder

DRIVE Powder

DYNAMO Powder

FAB TOTAL Powder

LUX Soap flakes

OMO Powder

OMO FREE Powder

BEST VALUE

RADIANT XL Powder concentrate

FIRST IN VALUE Heavy Duty Powder

GOOD VALUE PHOSPHATE-FREE

BIOZET Powder concentrate

Laundry detergents

Brand	Type	Manufacturer/ distributor	Origin	2 Also OK for front loaders?	3 Low or no phosphorus	4 Contains enzymes	Packet size costed	Average survey price ($)*	5 Cost per wash (cents)	6 Relative washing performance score (%)
FOR FRONT LOADERS										
OMOMATIC *(A)*	P	Lever Rexona	NZ	✓		✓	1 kg	4.97	53	95
COLD POWER MATIC *(A)*	P	Colgate Palmolive	ns	✓			1 kg	4.48	51	92
DOMINANT Front Loader *(A) (B)*	PC	Dominant	Australia	✓	✓		2 kg	20.75	24	72
FOR TOP LOADERS (unless specified as OK for front loaders too)										
COLD POWER	P	Colgate Palmolive	Australia				1 kg	4.43	60	93
DRIVE	P	Lever Rexona	NZ			✓	1 kg	5.11	60	93
DYNAMO	P	Colgate Palmolive	Australia				1 kg	5.03	63	93
FAB TOTAL	P	Colgate Palmolive	Australia				1.5 kg	7.52	72	92
LUX	SF	Lever Rexona	Australia		✓		750 g	4.17	54	92
OMO	P	Lever Rexona	NZ			✓	1 kg	4.98	54	92
OMO FREE	P	Lever Rexona	NZ				1 kg	5.05	59	92
DRIVE POWER	PC	Lever Rexona	ns			✓	750 g	4.51	40	90
DYNAMO (regular)	L	Colgate Palmolive	Australia		✓		1.5 L	7.34	52	90
RADIANT XL	PC	Cussons	Australia	✓		✓	1 kg	5.16	29	90
BIO-ZET	PC	Kao Corporation	Taiwan	✓	✓	✓	750 g	4.75	33	89
COLD POWER ULTRA	PC	Colgate Palmolive	Australia			✓	1.5 kg	7.75	36	89
DYNAMO ULTRA	PC	Colgate Palmolive	Australia				1.5 kg	7.91	35	89
HOME BRAND *(C)*	PC	ns	Australia	✓			1 kg	2.76	33	89
OMO MICRO	PC	Lever Rexona	ns			✓	750 g	4.14	35	89
SURF	P	Lever Rexona	ns				1 kg	2.86	52	89
CASTLE	P	Wolseley Castle	Australia	✓			1 kg	2.45	33	88
COLD POWER	L	Colgate Palmolive	ns				1.5 L	6.54	44	88
DYNAMO EUCALYPTUS	L	Colgate Palmolive	ns				1.5 L	7.33	49	88
FIRST IN VALUE Heavy Duty	P	DeSoto / KMart *(H)*	USA	✓		✓	2 kg	4.99	26	88
GOW'S BIO-CLEAN	P	Colgate Palmolive	Australia				1.125 kg	3.57	32	88
OMO	L	Lever Rexona	ns				1 L *(K)*	4.13	51 *(K)*	88
SA8 PLUS	PC	Amway	USA	✓		✓	1 kg	11.65	69	88
SPREE	P	Colgate Palmolive	Australia				1 kg	2.99	38	88
SUNLIGHT / VELVET *(D)*	SP	Lever Rexona	Australia		✓		1.25 kg	5.97	64	88
FIRST IN VALUE Heavy Duty	L	DeSoto / KMart *(H)*	USA	✓			1.9 L	4.99	26	87
HURRICANE	PC	Wolseley Castle	Australia	✓	✓		2 kg	3.55	31	87
DRIVE POWER	LC	Lever Rexona	Australia		✓	✓	1L	8.21	36	86
FAB TOTAL ULTRA	PC	Colgate Palmolive	Australia		✓	✓	750 g	3.98	32	86
FIRST IN VALUE ULTRA	LC	DeSoto / KMart *(H)*	USA		✓	✓	1.5 L	5.99	36	86
SAVINGS *(E)*	P	Wolseley Castle	Australia		✓		1.5 kg	2.36	34	86
SURF COLD WATER	PC	Lever Rexona	NZ				1 kg	4.50	24	86
FIRST IN VALUE ULTRA	PC	DeSoto / KMart *(H)*	USA	✓	✓	✓	3 kg	9.95	27	85
COLD WATER SURF	LC	Lever Rexona	Australia				1 L	6.09	28	84
MORNING FRESH	L	Cussons	ns	✓			2 L	4.99	21	84
OMO MICRO	LC	Lever Rexona	Australia		✓	✓	1 L	7.79	37	84
AURA	L	Reckitt & Colman	ns	✓			2 L	4.68	23	83
DOMINANT Phosphate free *(B)*	PC	Dominant	Australia	✓	✓		2 kg	19.40	40	83
SURF	L	Lever Rexona	Australia				2 L	5.22	22	83
BUSHLAND	PC	Bushland Products	Australia	✓	✓	✓	750 g	2.66	22	82
SA8 FRESH	PC	Amway	USA	✓	✓	✓	3 kg	37.65	45	82
GREEN CHOICE *(B)*	PC	Southern Cross	Australia		✓		750 g	3.90	35	81
BIOZET	LC	Kao Corporation	Taiwan	✓	✓	✓	1 L	7.72	37	80
DOWN TO EARTH	PC	Reckitt & Colman	Australia	✓	✓		750 g	4.71	38	80
SPREE ULTRA	PC	Colgate Palmolive	Australia				750 g	3.10	16	80
DOMINANT *(B)*	L	Dominant	Australia	✓	✓		1 L	16.45	86	79
DOMINANT *(B)*	PC	Dominant	Australia	✓			2 kg	17.95	37	79
PLUS	L	Campbell Brothers	Australia	✓			1 L	2.31	19	79

Brand	Type	Manufacturer/ distributor	Origin	2 Also OK for front loaders?	3 Low or no phosphorus	4 Contains enzymes	Packet size costed	Average survey price ($)*	5 Cost per wash (cents)	6 Relative washing performance score (%)
SA8	L	Amway	USA	✓	✓		1 L	17.65	28	78
SAVINGS *(F)*	PC	Wolseley Castle	Australia	✓			1 kg	2.89	25	78
ARK	PC	Ark	Australia	✓	✓		1 kg	5.99	27	77
SCOTTS BLUE	L	Benckiser	ns	✓		ns	2 L	3.29	25	77
BUSHLAND	L	Bushland Products	Australia	✓	✓		1 L	4.53	38	76
BUSHLAND	P	Bushland Products	Australia	✓	✓		1 kg	2.22	20	76
CASTLE SUPER	PC	Wolseley Castle	Australia	✓			750 g	2.79	17	76
AWARE *(B)*	PC	Bionomics	Australia	✓	✓		1 kg	4.35	21	75
HURRICANE *(G)*	PC	Wolseley Castle	Australia	✓	✓		1 kg	2.97	18	74
HLD	PC	Swipe	Australia			ns	2.5 kg	23.00	32	72
NUTRI-CLEAN	LC	Nutri-Metics	Australia	✓	✓	ns	1 L	14.50	43	72
EXCEL BLUE	P	Wolseley Castle	Australia	✓	✓		750 g	1.35	19	71
ARK	L	Ark	Australia	✓	✓		1 L	5.99	30	70
BLACK & GOLD	PC	*(J)*	Australia	✓	✓		1 kg	2.69	14	69
HERBON *(B)*	SP	Herbonics	Australia	✓			1 kg	8.15	55	69
HLD Phosphate free	PC	Swipe	Australia		✓		2.5 kg	23.00	31	68
SAVINGS	L	GJ Coles	Australia		✓		2 L	1.49	23	68
BLITZ	LC	Nature's Organics	Australia	✓	✓	✓	1.25 L	3.90	13	67
HERBON *(B)*	L	Herbonics	Australia		✓		2 L	12.70	31	66
EARTH'S CHOICE	L	Earth's Choice	Australia	✓	✓		1 L	1.91	24	65
GREENCARE	L	Bryant & May Group	Australia	✓	✓		2.5 L	4.07	13	65
PRESERVENE ADVANCE	SP	Cussons	Australia	✓	✓		1.25 kg	2.50	9	65
PRESERVENE SNO	SP	Cussons	Australia	✓	✓		1.25 kg	2.13	8	65
LAUNDA SOFT	L	Bryant & May Group	Australia	✓	✓	ns	2.5 L	3.96	12	64

* Average prices, obtained from surveys in Sydney, Adelaide and Geelong during December 1995.
ns Not stated.
(A) These three detergents, designed specifically for front loaders, were tested in a front-loading washing machine. All other detergents were tested in a top loader.
(B) Not tested on animals, according to Choose Cruelty Free's Spring 1995 Preferred Products List.
(C) This brand is sold in NSW. All other detergents we tested are widely available in at least three states.
(D) Sold as Velvet in Victoria and as Sunlight in all other states.
(E) May be sold under a number of different brand names, including BiLo, Black and Gold, Home Brand, No Frills, No Name, Payless and Savings.
(F) Also sold as BiLo concentrated powder.
(G) Labelled as a 'super-concentrate'.
(H) Manufactured by DeSoto, USA, for KMart.
(J) Packed for Australian Asia Pacific Wholesalers. It may also be sold in some states as No Name, Home Brand or Payless concentrated laundry powder.
(K) Price calculated for refill pack.

1 Type

P — Powder.
PC — Powder concentrate.
L — Liquid.
LC — Liquid concentrate.
SF — Soap flakes.
SP — Soap-based powder.

2 Also OK for front loaders?

Front-loading washing machines are generally more water and energy-efficient than top loaders. However, they need a low-sudsing detergent, and not all detergents on the market are suitable. If the packaging doesn't say "suitable for front loaders" or suggest dosage for one, we'd advise against using the detergent in a front-loading machine.

3 Low or no phosphorus

We've grouped 'low' and 'no' together, as trace levels may be present in detergents with no added phosphorus. 'Low' means up to 0.5%. Some manufacturers use a labelling scheme in which this phosphorus is indicated by 'NP' (see page 25).

4 Contains enzymes

Manufacturers claim enzymes help remove stains from clothing, but we found detergents containing them didn't generally wash any cleaner, at least not in the cold water we used for our tests (enzymes work best in warm water).

A tick indicates the information about enzymes was given on the packaging or, where it wasn't, that manufacturers told us where it wasn't, that manufacturers told us the product contains them. A blank means the product doesn't contain enzymes, while 'not stated' indicates the manufacturer didn't provide the information.

5 Cost per wash

We calculated how many washes it was possible to get from each pack of detergent if you follow the manufacturer's recommended dosage for a normal load in a medium-sized machine. We then surveyed the market to find the average price of each detergent and calculated the cost per wash.

6 Relative washing performance

Each detergent was used to wash four different types of cloth swatches, and the results for each made up a quarter of the performance score. Three were specially soiled cotton swatches designed to measure removal of different kinds of dirt. The fourth swatch, 100% polyester, was used to measure whiteness retention (how well the detergent kept dirt in suspension). Four swatches of each type were attached to a 'standard' wash load in each run, and three runs were done for each detergent.

The results were compared with 'best wash' swatches to give 'relative washing performance'. 'Best wash' swatches represent the best possible washing performance — they're prepared by washing them six times in good-quality detergent.

Bathroom renovations

what not to do (and how to remain sane)

Whether you're simply replacing the fixtures or ripping everything out and starting again, there are dozens of hidden traps to consider when renovating your bathroom.

ARE YOU PLANNING to supervise the renovations yourself, or are you employing a builder? Are you asking a bathroom renovation specialist to do the job?

All are viable options, depending on how much work you're having done, how knowledgeable you are, how much time you have and how much you can afford to pay.

OWNER/BUILDER vs PAID SUPERVISOR

Being an owner/builder means you'll plan and supervise the building work and renovations yourself. An alternative is to pay a builder to co-ordinate and supervise. An of the key tasks of the supervisor — whether it's you or a licensed builder — is to foresee all the tasks, skills and materials involved, optimising the ordering, delivery or execution of each to achieve the best, most efficient result.

Bathroom renovating specialists work on the same basis as a builder — but they may charge more.

The advantage of paying someone to co-ordinate the work is that subcontractors are answerable to the builder or bathroom specialist, so if anything goes wrong — such as a disagreement over the quality of the work — it's the builder or specialist's responsibility to correct the situation.

Unless you're particularly knowledgeable about the trades involved in bathroom renovation, it's wise to employ a builder or specialist to supervise the job. On the other hand, if you're only changing the fixtures (for example, the vanity unit, taps, shower screens, etc), consulting with your plumber may be all that's necessary.

For the purpose of this article, however, we'll assume you're gutting your bathroom and starting again, which could cost between $7000 and $20,000, depending on what materials you use and how complicated the renovations are. We've also assumed you're not an expert and so you'll employ either a builder or bathroom renovation company.

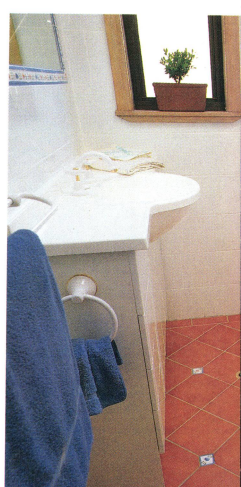
A CAST OF THOUSANDS

Extensive bathroom renovations could see all the following tradespeople involved:

- Builder/supervisor.
- Architect or draftsperson.
- Plasterer.
- Plumber.
- Concreter and bricklayer.
- Carpenter.
- Waterproofer (can also be done by a tiler, or builder with a comprehensive licence).
- Tiler.
- Shower screen installer.
- Electrician.
- Painter.

WHERE DO YOU START?

First of all, you'll need to get quotes. This means asking the builders or bathroom renovators to come to your house to discuss what they'll do to your bathroom, and how much they'll charge you.



This is a good opportunity to firm up your ideas on how you want your bathroom to look and function, as the builder will make suggestions you might not have considered, and will tell you if something can't be done.

If you don't know any builders, ask your friends. If they've had work done and they're happy with the result, that's a good place to start. Alternatively, ring your local building association — it should be able to recommend reputable builders who are members.

But make sure whoever you finally choose is licensed, is insured (see *Licensing and insurance: making sure you're covered*, on page 30), and can refer you to at least three people they've worked for previously. It's important you ring these people to ask if they're happy with the builder's work, and if possible, see the work yourself.

Photo: House & Garden

The bathroom renovations industry was worth about $718 million dollars in 1992, according to the BIS Shrapnel survey on *Building Materials and Fittings in Australia 1992-1994.*

BEFORE YOU SIGN ON THE DOTTED LINE ...

Before signing any contract, it's important to know exactly what you want done to your bathroom, because every detail needs to be included in the contract to avoid mistakes and disputes.

Your bathroom company or builder should draw up a plan and specifications. If your builder can't do this, it's worth asking an architect or draftsperson to do so. This way, confusion about important details such as where tap fixtures should go, how high tiling will be on the walls, and where the lighting is to be placed is less likely. It helps iron out most design faults and pick up on anything you've forgotten.

It also means the builder and all subcontractors can incorporate the work on the drawing into their contract, so there's no doubt about what needs to be done and how much the job will cost you. This is very important for work like plumbing, where pipes for taps must be installed before plastering and tiling. A drawing shows exactly where the taps are to go, so if the plumber installs the pipes in the wrong place, you won't have to pay for the work to be done again, or put up with something you don't want.

Before you sign a contract, make sure you negotiate the basis for the cost of any variations you might want to make to the plan later. Some contractors charge a fee by the hour for any deviations, while others charge a set fee per change. Also discuss exactly what materials are to be used, from waterproofing to tile adhesive, as all materials should be detailed in the contract. Ask what care will be taken to prevent damage to the rest of the house — such as the carpets — and who will be responsible for removing rubbish left over once the renovations are complete.

If the work involves structural change, most states require council and water authority approval. It's illegal to start structural change without this permission. Your builder and subcontractors usually apply on your behalf, but if you have any doubts, your local council will soon set you straight.

Bathroom renovations can take between two and six weeks, so make alternative arrangements if you don't have a second bathroom.

THE CONTRACT

As one building inspector told CHOICE: "The amount of detail needed in a contract to avoid a future dispute is about three times more than most people usually get."

Having an architect or draftsperson draw up a plan and specifications (as discussed above) is one safety net. Another is arranging for a 'plan check' — asking a building inspector or architect to check your contract before you sign

NIGHTMARE RENOVATION

Virtually everything seemed to go wrong when Geoff and Karen renovated both their upstairs and downstairs bathrooms.

They employed the same company that had renovated their kitchen — which they were very happy with — to do their bathrooms. The job was to be done in two stages and completed within two months. Three months later, the end was not in sight and they were going crazy.

First, tradespeople didn't turn up for scheduled appointments — infuriating for Geoff and Karen, who both do shift work.

Then the plumber bent a shower rose, tried to install the spa pump in the wrong location, made the pipes for the hot water tank out of leaky scrap metal, and flooded the next room and carpet.

The flood was partly the fault of the tiler, who had swept his scrap cement and rubbish into the floor waste drain, blocking it completely.

This was the same tiler who retiled the downstairs bathroom *three* times because he kept laying the tiles incorrectly, despite Geoff drawing the tile positions on the wall in felt pen.

The upstairs toilet was installed incorrectly (this was a different plumber) and Geoff had to fix it himself.

In the end, Geoff and Karen got what they wanted and can look back on the experience as a comedy of errors — albeit one they'd have preferred to live without.

Licensing and insurance: making sure you're covered

It's essential any builder or tradesperson you employ is licensed and has a warranty, which is a form of insurance.

A licence means tradespeople are fully trained and qualified in their area of work and have agreed to follow the industry's compulsory code of practice. All states except Tasmania and the NT require builders to have a licence (in SA, supervising builders also need a supervising licence), and licensing requirements can differ according to the value of the work being done.

In some states, 'licences' are also called 'registration', and for builders they're usually one and the same thing. However, within some trades, having a licence and being registered can be quite different. For example, in NSW a plumber can be registered to work but not licensed, which means they can work for a licensee but not be directly employed by the public. So it's important to check your subcontractors' qualifications before they begin work — otherwise you might not be covered by insurance if something goes wrong.

Warranties (called indemnity insurance in some states) are designed to protect you against a builder or tradesperson failing to complete contracted work or carrying out defective work, as well as against the tradesperson's company going broke. How long the work is covered by the warranty varies from state to state — in general it's between five and seven years.

Each state has different rules on whether warranties are compulsory or voluntary, and whether you need a warranty for *all* forms of renovation work (including simply changing the fixtures), or only for more complicated work requiring council approval (for structural change, from plumbing to knocking down walls). Warranties can also vary according to the value of the work. For example, at the time of writing some states didn't require a warranty for work under $5000 in value.

We'd like to see uniform legislation throughout Australia regarding all building qualifications, licensing and warranties. But until that happens, before you sign a contract — no matter where you live — ask your builder or bathroom renovation specialist:

- Do you have a licence and a warranty?
- Do your subcontractors also have both?

As an extra check, contact your state licensing authority, find out what qualifications and warranties the workers in your house need and who they need them from. Don't allow any work to start until you're certain some form of cover is in place. Also ask if any complaints have been lodged by consumers against the tradespeople or companies you're thinking of using.

The following organisations can give you information on state licensing and warranty requirements:

- ACT: ACT Building, Electrical and Plumbing Control, (06) 207 6309.
- NSW: Department of Fair Trading (formerly Building Services Corporation), (02) 9934 6444 or 1800 451 258.
- NT: Territory Construction Association, (089) 81 9666.
- Queensland: Building Services Authority, (07) 3225 2800.
- SA: Consumer Affairs, Builders Licensing, (08) 204 9644.
- Tasmania: Department of Consumer Affairs, (002) 33 4567; HIA Home Owners Warranty, (002) 34 8922.
- Victoria: Housing Guarantee Fund, (03) 9660 6261.
- WA: Builders Registration Board, (09) 321 6891.

it to make sure nothing has been excluded, or needs to be changed.

One reader's experience is the perfect example of what can happen without such a check: "The architect described it to me as a cupboard, and that was what I wanted. But the builder said it was an alcove with shelves — no doors were shown on the plan, so he said doors weren't included in the contract. If I want cupboard doors, I'll have to pay extra."

On average, a bathroom plan check costs about $150, but if you're paying thousands of dollars for the renovations, it might be a worthwhile investment.

Most builders use standard industry contracts from organisations such as the Housing Industry Association or the Master Builders Association, which are in plain English and designed to protect both the consumer and the builder. Your builder may want to draw up their own contract in which case you should check it covers everything.

Happily quoted

Jane relied on instinct when it came to choosing a renovating company to do her bathroom.

She rang four companies listed in the Yellow Pages who were members of the Housing Industry Association. One didn't even bother to show up.

Of the three quotes, she was least impressed with the first. He "seemed a bit like a cowboy to me and his suggestions would have left me with an even smaller bathroom," Jane said. His quote (handwritten), promised within a week, turned up three weeks later.

The second company was slightly more professional but their quote was also late and handwritten. But Jane immediately liked the third company. They gave her a rough estimate on the spot and two days later a typed, two-page quote arrived detailing exactly what work was to be done.

Needless to say they got the job, and Jane was thrilled with the results. "They were friendly and helpful at all times and cheerfully made minor changes at no extra cost," she said.

If you make any variations to the plans while work is being done, they need to be put in writing. You should already have negotiated a cost basis for such variations, but write down exactly what the changes are. It's worth buying a triple-carbon receipt book so you can make three copies — one for the builder, one for the subcontractor and of course, one for you. The more you have in writing, the better your protection against disputes.

DEPOSITS

Before work begins you also need to consider the deposit — the legal maximum varies from state to state, but you shouldn't be asked to pay more than 10% for work under $20,000. Some states require less than this, so check with your state building association or authority (see *Licensing and insurance*, left, for contact numbers).

You'll normally have to give the builder progress payments at an agreed rate when the work reaches various stages. The idea of this is to be fair to both sides — the builder is paid as he/she works, and the householder makes sure the final payment isn't made until all the work is completed satisfactorily. However, progress payments are a fairly common cause of dispute — your building association or authority may be able to help mediate or settle the problem.

DISPUTES

Having everything in writing means there ought to be no arguments. However, things can still go wrong.

If a dispute arises, speak first to the builder in charge. It may be a simple communication breakdown that can be easily fixed. If that doesn't sort things out or achieve a satisfactory compromise, contact your state builders' licensing board or building association.

Put your concern in writing and the organisation will either try to resolve the dispute informally, if it's a small matter, or through arbitration if it's serious. This is when having a warranty becomes very important (see *Licensing and insurance*).

Arbitration may involve having an independent architect, a structural engineer or a building inspector come to your home and check the tradesperson's work. If the arbitrator decides in your favour and the tradesperson still refuses to co-operate, you can claim on the warranty and the work will be fixed or completed by a different tradesperson. The organisation which issued the warranty may then sue the tradesperson for recovery of costs.

If the inspector decides in favour of the tradesperson and you're still not satisfied, you may end up having to go before a consumer disputes tribunal in your state.

Most disputes can be solved early without outside intervention. So before launching into any form of action, talk to the tradesperson involved — it could save a lot of time and stress.

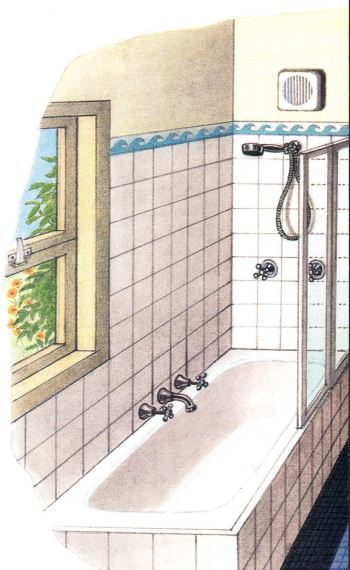
Bathroom design and safety tips

- Consider how many people will be using the bathroom, their age and whether they're infirm. Install grab rails for young or old people in the bath and shower. A tiled ledge on at least one side of the bath can be used for sitting on, making it easier to bath children.
- Place bath taps above the middle of the bath, rather than down one end. This can make cleaning easier, and avoids hot water dripping on your back or feet.
- Locate the vanity unit close to the door where it's easily accessible.
- Place the mirror directly above the vanity unit, but not touching it, or water may damage it.
- Ensure bathroom doors can be unlocked from both the inside and outside, or can be easily removed or opened should someone slip over and need help quickly. Sliding doors or removable hinges are practical.
- Don't keep medicines and cleaning products in easily accessible bathroom cupboards. The best place to store them is up high, out of small children's reach, preferably in a locked cupboard.
- Don't place shower taps directly under the rose. You should be able to reach them without getting wet or scalded.
- Don't use clear glass in external windows unless you have a private view.
- Towel rails should be accessible from the bath and shower and be strong enough to take the weight of an adult.
- Don't place toilet paper roll holders behind the toilet or where they can get wet from the bath, shower or basin.
- Make sure you leave enough room in front of the toilet to avoid banging into fixtures.
- Hot and cold taps should be placed in standardised locations; hot (marked red) on the left, cold (marked blue) on the right. If one is on top of the other, the top tap should be hot, the lower tap cold.
- Washbasins should not overhang the bath, or be easy to climb on from the bath.
- Showers over baths are slippery and hard to climb into, making them unsuitable for young children, people with disabilities or the elderly.
- Hot water pipes should be concealed or insulated to prevent burns.
- Sharp or hard corners should be avoided, especially close to slippery surfaces near baths and showers.
- Projecting ceramic soap holders must be at least 1200 mm above the floor to reduce the chance of injury if you fall.
- Use a common spout rather than two separate taps — this reduces the chance of scalding from hot water.
- Power points should be placed so cords don't extend over washbasins. Bench space below power points is also practical.

Photo: House & Garden

The work begins

The following is a brief outline of what to look for when your bathroom is being renovated. If you'd like more information, send a business-size, stamped, self-addressed envelope to Bathroom Factsheet, 57 Carrington Road, Marrickville 2204, and we'll send you our free Bathroom factsheet.



WATERPROOFING

Waterproofing in a bathroom has to be done properly or you'll end up with damage to walls, carpets and even other rooms. There are three main ways of waterproofing your shower:

- With a prefabricated tray.
- With a paint-on waterproofing substance.
- With a moulded acrylic shower base.

All three work well if installed correctly. Fibreglass is also an option, but it doesn't 'give' with house movement, which can cause problems such as leaking.

Whichever you decide on, make sure all corners, taps and spouts are properly sealed with a flexible sealant (also important for showers over baths) and that flashings (waterproof barriers) are fitted along the shower cubicle's wall and floor edges.

For shower screens, always use safety glass (a thick, toughened or laminated glass). Make sure the screen is flush with the inside of the tiled or metal water barrier (called the hob) at the edge of the shower floor to prevent leakage. And use a white or coloured silicon sealant — it disguises the unavoidable mould that grows behind it.

BATHROOM FLOORS

The best base for a bathroom floor is fibre cement, which is stable and waterproof. Compressed fibre-cement sheets are also good. A waterproof barrier should be used to ensure everything is watertight.

TILES

The best tiles for bathrooms are glazed, ceramic, monocottura, vitrified, marble or granite. Don't use porous tiles such as terracotta or slate, which need regular sealing or water absorption will cause them to discolour.

The best grout is one with a biocide to prevent mould — biocide treatment also means the grout is less likely to disintegrate over time.

Before the work begins, make sure you discuss with the tiler any special effects you want, such as a pattern sequence or which way you want rectangular tiles to run. Large tiles can be a problem to install on floors (for example, they can be difficult to slope towards a drain), so it's best to confine them to the walls.

VANITY UNITS

It's important to make sure before you buy that a vanity unit fits neatly into the space available — small gaps are dust and moisture traps.

Also consult with your plumber before buying, to check important facts such as which side any drawers should be to avoid the water pipes.

Ideally, the base should be made from custom or craftwood, or high-moisture-resistant (HMR) board. Never use plain chipboard.

TAPS

There are two types of tap available — the common jumper-valve style or the more recent ceramic-disc tap.

Ceramic-disc taps have permanent washers that don't need changing. They can also be turned on and off within a 90° turn. This is convenient on a sink, especially if you have arthritis, but in a bath or shower it makes adjusting the water temperature difficult. Some manufacturers are developing ceramic-disc taps that turn 180° and so are easier to adjust.

Renovating is a good chance to install thermostatic mixing valves, which preset the maximum temperature of hot water coming out of taps. If small children or elderly or disabled people use the bathroom, it's safer to set the maximum temperature to 50°C.

BATHS

The old-fashioned cast-iron bath is coming back into vogue, but while they're long, deep and durable, they're also mostly imported from overseas and expensive. If you have an old one and want to fix it up, resurfacing is one solution (our *Bathroom factsheet* gives information on getting this done).

Pressed-steel baths with an enamel coating are a more common option, but come in a limited number of shapes and colours (usually white). They're also susceptible to corrosion

Illustration: Mike Gorman

around the plug hole, and scratching if grit or sand gets beneath your feet.

Acrylic baths also scratch quite easily. They come in a large array of colours, shapes and sizes and are reasonably priced.

Make sure you check with your builder and plumber before buying your bath or spa, to be certain it will fit and suits the installed plumbing. Also ensure it's on-site before work on your bathroom begins.

TOILETS

Only toilets approved by Standards Australia are permitted to be installed. Some imported toilets don't meet Australian regulations and should not be used.

All new toilets must now have a dual flushing system to conserve water, with the option of a larger (six litre) or smaller (three litre) flush.

PLUMBING

Pipes for your water service need to be installed before all other construction work on your bathroom begins. The plumber will come back later to install the fixtures and connect them to water. Your plumber might also be able to recommend ways of conserving water.

One final word: it's illegal for you to do any plumbing in your home unless you're a registered or licensed plumber.

PAINT

Water-based acrylics are the preferred paints for bathroom walls today — they're easier to handle than oil-based paints. Always use a semi or high-gloss paint, because the slippery surface makes it harder for mould to grow. You can also get paint with a built-in mould inhibitor, which should help.

LIGHTING, VENTILATION AND HEATING

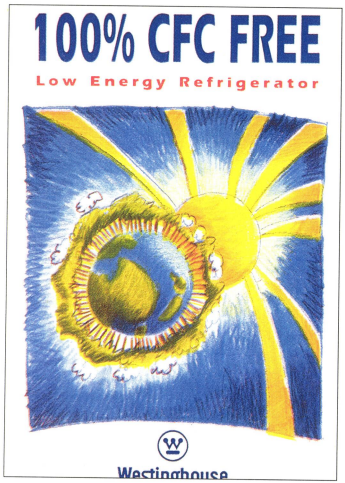
If your bathroom doesn't have a window, or only a small one, a fan is essential. Many people install a convenient and practical three-in-one system with lights, heating and fan. A skylight is a good source of natural light, but is best combined with electric lights and a fan.

Don't use any electric heating that sits on the floor or vanity unit, or you risk electrocution. Wall-mounted radiator heaters aren't in fashion but are safe and practical.

And don't even think of having timber panelling in your bathroom without proper ventilation (our *Bathroom factsheet* has information on using timber in your bathroom).

How green are green claims ?

Are the environmental claims being made on some products useful or even valid? We take a look at some of them to see if they're really helping us make a choice for the environment.



The 100% CFC-free claim on fridges and freezers is worth looking for — some old models that still contain CFCs might be around in shops, even though models containing them can no longer be produced in or imported into Australia. Other 'green' claims are not so useful.

THERE ARE BENEFITS OF MAKing environmental claims on products — a 1994 NSW Environment Protection Authority survey found that 80% of people had chosen household products they thought were better for the environment. Most people make these choices based on the information on the product packaging or label.

We've had Australian guidelines since 1992 on making environmental claims. With the continuing high profile of environmental issues, a proliferation of environmental claims in the international marketplace has led to the development of international standards on environmental labelling as well.

These standards are still being developed but they'll be voluntary, not mandatory. Without mandatory standards we will still be dependent on the Australian Competition and Consumer Commission (ACCC) and its 1992 guidelines to decide whether claims are likely to be misleading.

SORTING OUT THE CLAIMS

So is our current system of guidelines actually working? We looked at the claims used on a range of products to see if the information is useful, truthful and not misleading, and checked out what they really mean. Here's what we found.

BIODEGRADABLE

Total biodegradability refers to the breakdown of a chemical substance into basic chemicals such as carbon dioxide and water. Different substances break down at different rates and a number of different chemicals may be produced in the process.

On labels, the claim 'biodegradable' only refers to the initial breakdown of the original substance (or primary biodegradation). It doesn't refer to total biodegradability or whether the breakdown products themselves will keep breaking down, or the impact they might have before they do. These secondary breakdown products might even be more toxic than the original substance.

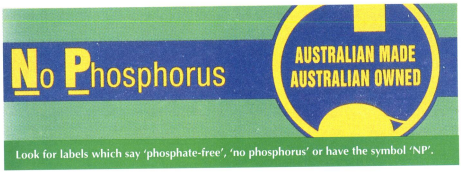
Currently, to make this claim only the active cleaning agents need to be biodegradable. A new Australian standard, due be be released in the next few months, will require all major components of cleaning products to be biodegradable before a manufacturer can make a claim.

The new standard has two categories of biodegradability — 'readily biodegradable', which means the chemicals break down quite quickly, and 'inherently biodegradable', which means they take longer. However, the new standard will still not address the potential toxicity of secondary breakdown products.

■ **Verdict:** Look for products labelled 'readily biodegradable'.

PHOSPHATE-FREE

This claim often appears on laundry detergents, where it's useful information. On other products such as hand dishwashing detergent, which wouldn't normally contain phosphates anyway,



Look for labels which say 'phosphate-free', 'no phosphorus' or have the symbol 'NP'.

it's simply irrelevant. Phosphates are normally used in laundry detergents and machine dishwashing powders to soften the water and help keep the dirt dissolved in it.

Phosphates contain phosphorus and are plant nutrients. When they find their way into our waterways (via our household drains) algae can use these nutrients and grow to the extent that all other plant and animal life dies. Toxic by-products of the algae can also make humans and animals sick.

A voluntary industry labelling scheme exists, using the symbols 'P' and 'NP'. The 'NP' products have no added phosphorus and contain less than 0.5%, while 'P' products have 5% phosphorus or less.

Because 'less than 5% phosphorus' is nothing new for many detergents, the 'NP' label is the best one to look for if you're serious about using less phosphate. Some manufacturers use the term 'phosphate-free' instead.

■ **Verdict:** If you want to choose a product with no added phosphorus, look for claims of phosphate-free or the 'NP' symbol.

NO ANIMAL TESTING

This claim is mainly used on cosmetics and relates to the ethical issue of discouraging ongoing testing of products and ingredients on animals. It's intended to enable consumers to choose products that have tried to avoid this. However, the meaning of the claim is not clear-cut.

It may mean the product itself has not been tested on animals even though the ingredients may well have been. Some ingredients may not have been tested on animals for a while, but almost every one will have been at some time. Very little, if any, testing of cosmetics goes on in Australia.

According to the ACCC, claims such as 'not tested on animals' should refer to both the product and the ingredients — ideally the label should say this.

■ **Verdict:** 'Not tested on animals' has too many different interpretations to be a very meaningful aid to buying (see CHOICE, March 1993, for the full convoluted story on animal testing). You could look for claims which state that neither the product nor the ingredients have been tested on animals, but we're not confident you'll find many.

A list of manufacturers who have satisfied Choose Cruelty Free that no animal testing has been carried out during development of or on the finished product is published by Choose Cruelty Free (in assocation with Animal Liberation) — it's probably the best starting point for shopping if this is important to you.

You can get hold of the list by phoning Animal Liberation in your state, or by contacting Choose Cruelty Free direct on (03) 9328 4314; fax (03) 9328 4373.

The Choose Cruelty Free brochure lists manufacturers who don't test their products on animals.

CFC-FREE OR OZONE-SAFE

Some aerosol products are claimed to be 'ozone-safe' or contain no CFCs. Although once relevant, this is no longer the case. All aerosol products (with the exception of a few specific medical products, including asthma inhalers) are CFC-free, and have been since 1989, when the Ozone Protection Act required the phase-out of these propellants.

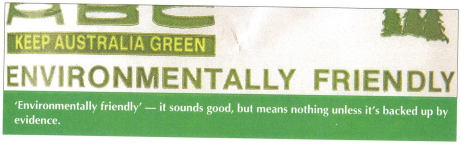
These claims suggest an environmental advantage compared to other products, but the propellants used are probably the same as in other products.

■ **Verdict:** Ignore these claims on aerosol products. Where possible recycle your aerosol cans or choose refillable pump packs. On refrigerators, freezers and air conditioners these claims are still valid because the recent changeover from CFCs to alternative refrigerant gases and insulation blowing agents means the claim is relevant. While fridges containing CFCs can no longer be made in or imported into Australia, some older models could still be in shops, so for a while 'CFC-free' is still a label worth looking for.

NON-POLLUTING

The use of terms such as 'non-polluting' or 'pollution-free' is excessive and misleading. Few, if any, products could

Ozone-safe (above) is only worth looking for on fridges, freezers or air conditioners. Non-polluting (below) really doesn't mean anything.



'Environmentally friendly' — it sounds good, but means nothing unless it's backed up by evidence.

justify a claim that they are totally free of adverse environmental effects. Almost all products have some effect in relation to their manufacture, packaging, use or disposal.

■ **Verdict:** This claim is meaningless and you can ignore it.

'GREEN' PRODUCTS

The names of some products suggest that they are better for the environment than others on the supermarket shelf. Images of dolphins and trees are sometimes used to imply a benefit to the environment.

■ **Verdict:** Be wary of products implying an environmental advantage unless it is backed up with some evidence.

ENVIRONMENTALLY AWARE/ CONSCIOUS/FRIENDLY

These claims are meaningless unless they're substantiated in some way. While the product may not contain ingredients known to cause serious environmental damage, most products are inherently polluting to the environment.

■ **Verdict:** Be wary, these claims mean nothing unless backed up by some evidence.

There's no such thing as recyclable plastic film for home use — this is one example of the kind of claim that shouldn't be on labels.

RECYCLABLE

If a product is claimed to be recyclable, it should mean facilities exist for that product or package to be recycled. A manufacturer should not claim a product or its packaging is recyclable if there are only limited facilities available, unless this is clearly stated on the label.

Theoretically all plastics are recyclable, but in practice this is not the case. The only plastics which can claim to be recyclable are those with an identification code of 1, 2 or 3 (see *Plastics which can be recycled*, right). Many councils still don't provide facilities for recycling plastics other than PET (1), so check with your council.

We found examples of other types of plastic claimed to be recyclable, including plastic food wrap made from polyethylene film. According to the Plastics and Chemicals Industries Association (PACIA), for home use "There is no film-type product which can call itself recyclable", so these claims are totally misleading.

■ **Verdict:** Philosophically speaking, it's better to choose a product which is made from recycled material and is also recyclable. That is, it's better to reuse resources currently in use than deplete the earth's store of non-renewable resources. In practice there may be occasions when the extra energy involved in the recovery and reprocessing of a product outweighs the benefits of reusing resources. Where possible choose packaging that's refillable or made of materials you know you can easily recycle.

IN CONCLUSION

According to the ACCC, manufacturers have cleaned up their act regarding environmental claims, with only a few complaints since 1992.

Our findings show environmental claims are being made which are not useful and may be misleading. Many claims are unsubstantiated, giving you no genuine information about which products have a lesser impact on the environment.

Plastics which can be recycled

Polyethylene terephthalate: PET products with a 'rocket bottom' or which are part of the REPETE scheme (signified by an 'R' logo), such as soft-drink bottles, can be recycled.

High-density polyethylene: These plastics include milk, cream and juice bottles, which can be recycled in many areas — check with your local council. Coloured HDPE and bottles made of HDPE which have been used to hold products other than milk, cream and juice can't normally be recycled. Supermarket bags can only be recycled through systems set up by individual retailers.

Vinyl, including plasticised and unplasticised polyvinyl chloride (PVC): These include clear juice and cordial bottles, which may be recycled. Again check with your local council to see where you can find recycling facilities. Coloured vinyl can't be recycled at present.

The ACCC can bring prosecutions against companies in breach of the Trade Practices Act, which covers manufacturers making misleading claims. This, and the adverse publicity which goes along with it, should be sufficient incentive to ensure claims made are accurate and not misleading. But as they're still out on the shelves it seems we need either more active and better-resourced policing or mandatory standards to ensure claims are meaningful and uniformly used.

If you have come across an environmental claim or a symbol you believe is misleading, send it to us at: **Green Page,** CHOICE, 57 Carrington Road, Marrickville 2204, or contact the ACCC (check the White Pages for details of your closest office). ❑

Jabs for kids

"If immunisation doesn't catch on, disease will," health authorities warn.

Getting your child immunised — the benefits outweigh the risks.

EPIDEMICS OF MEASLES AND whooping cough throughout Australia over the last four years prompted health authorities to launch a national campaign late last year urging parents not to neglect children's routine immunisations.

Since then, the Australian Bureau of Statistics (ABS) has published a report showing how alarmingly low our current vaccination rates are — only half of all children aged six and under are fully immunised according to the government immunisation schedule that was used until 1993. And if you measure against the new schedule, which includes the new Hib jab (only introduced in 1993), the rate drops as low as 33%.

So why do so many kids miss out? According to the ABS survey, most parents who didn't get their children immunised thought (mistakenly) they were too young. Parental apathy was another reason — more than 26% of parents who hadn't properly immunised their kids against measles, for example, said they hadn't got around to it. And some were opposed to immunisation.

Few parents of young children have seen the suffering that diseases like diphtheria and polio can cause. And that's due in large part to the success of the immunisation campaigns of the 1940s and 1950s.

If enough children are vaccinated, infectious diseases like measles and whooping cough can be kept under control, and hopefully in the future they can be eliminated. For that to happen at least 95% of children need to be immunised, according to the Commonwealth Government's chief medical adviser on infectious diseases, Dr Gavin Frost.

In Finland, where 95% of children have been immunised against measles, mumps and rubella (German measles), these diseases have now been virtually eradicated and the only new cases seem to have been unimmunised people arriving from other countries.

In Australia, by contrast, in 1994 doctors reported almost 5000 cases of measles, around 5500 children with whooping cough and more than 3000 cases of rubella.

These diseases can have serious consequences. For example, over the last 10 years there have been 75 deaths in Australia from measles and related complications.

IMMUNISATION REGISTER

On January 1, 1996, an Australian Childhood Immunisation Register was established. It will not only give health authorities a more accurate picture of immunisation coverage in Australia, but will also provide a reminder of when children's vaccinations are due.

All children up to the age of six who are enrolled in Medicare will automatically be included in the register.

The setting up of the register doesn't mean you must have your child immu-

WHEN JABS ARE DUE

This is the vaccination schedule recommended by the National Health and Medical Research Council. The one in your state or territory may be slightly different.

Hepatitis B vaccination is not included in the list. However, babies at high risk of getting the disease should be immunised within 24 hours of birth. These children include those whose parents carry the virus, inject illicit drugs, have multiple sexual partners or come from communities with high rates of hepatitis B infection (such as many Aboriginal, Asian and Pacific Islander communities). If you think your child should get this vaccine, ask your doctor.

NHMRC immunisation timetable

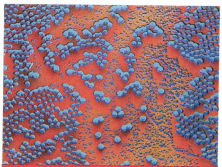
Vaccine	2 months	4 months	6 months	12 months	18 months	4–5 years or prior to school entry	10–16 years	Prior to leaving school (15–19 years)
Diphtheria/tetanus/pertussis*	✓	✓	✓		✓	✓		
Oral polio vaccine	✓	✓	✓			✓		✓
Hib (*Haemophilus influenzae* type b)	✓	✓	✓**	✓**	✓**			
Measles / mumps / rubella				✓			✓	
Adult diphtheria / tetanus								✓

* Whooping cough ** Depending on the type of Hib given at two and four months, your child will only need one or two of these three injections.

nised — it isn't compulsory in Australia. In the ACT, NSW and Victoria an immunisation record must be presented when your child starts school, and other states are committed to introducing similar policies in the near future. If you choose not to immunise your child, you have the right to present a blank card — but you must also accept that your child will be sent home if there is an outbreak of an infectious disease they haven't been vaccinated against, to prevent them catching and spreading it.

IS IMMUNISATION NECESSARY?

Yes. Anti-immunisation groups argue that infectious diseases were already on the decline before the introduction of vaccination programs and antibiotics, thanks to improved nutrition and hygiene. However, outbreaks of infectious diseases still occur in developed countries, as many diseases prevented by immunisation are spread directly from human to human. If enough children are immunised, these epidemics won't occur and deaths can be prevented.



Polio virus — no cases have been diagnosed in Australia since 1986.

Vaccinations and the diseases they prevent

Diphtheria, tetanus and pertussis (DTP or triple antigen)

The combined diphtheria, tetanus and pertussis (whooping cough) jab protects against these three bacterial infections.

■ **Diphtheria** is caused by bacteria found in the mouth, throat and nose. The toxins they produce can lead to serious complications, such as paralysis and heart failure.

■ **Tetanus** is caused by bacteria found in soil, dust and manure, which enter the body through a wound or burn. The bacteria produce a poison that causes muscle spasms and breathing difficulties, convulsions and death.

■ **Pertussis** (whooping cough) is spread by coughing and sneezing. It causes severe coughing spasms and can make breathing difficult. Complications include haemorrhage, convulsions, pneumonia, coma, inflammation of the brain, permanent brain damage and long-term lung damage. Around one in every 200 children under six months of age who catches pertussis will die.

■ **Possible vaccination side-effects**: More than 50% of children will develop swelling and soreness around the injection site and 20% will become mildly feverish and unsettled for up to two days after the injection. In rare cases, more serious reactions, such as high temperature (over 40°C), convulsions or collapse may occur (though no long-term effects have been shown).

In the 1970s British reports that whooping cough vaccine was directly linked with brain damage caused many parents to refuse immunisation for their children, resulting in a whooping cough epidemic and many infant deaths from the disease. Major long-term studies have failed to prove a link between DTP and brain damage.

Measles, mumps and rubella (MMR)

The combined MMR vaccination protects against these three viral diseases, which can be caught through coughs and sneezes from an infected person.

■ **Measles** causes fever, rash, runny nose, cough and sore red eyes. It can have serious complications, such as pneumonia, inflammation of the brain, permanent brain damage and death. A rare, fatal condition called subacute sclerosing panencephalitis (SSPE) may develop in children several years after measles infection.

■ **Mumps** causes fever, headache and inflammation of the salivary glands. It can occasionally cause an infection of the membrane covering the brain, permanent deafness and swelling of the testicles in adolescent and adult males.

■ **Rubella** (German measles) is a mild disease which causes swollen glands, joint pains and a rash on the face and neck which lasts two or three days. If a pregnant woman catches rubella, it can cause deafness, blindness, heart defects and intellectual disability in her baby.

■ **Possible vaccination side-effects:** Feeling unwell, a mild fever and possibly a rash 6-11 days after the injection. Occasionally mild facial swelling occurs about three weeks after. Very rarely, inflammation of the brain may occur. The risk of serious complications after measles alone far exceeds the small risks associated with MMR immunisation.

Polio (OPV)

Even though there have been no cases of polio in Australia since 1986, there are thousands of cases overseas and the disease could reappear here if people aren't immunised against it. The polio virus affects the digestive and nervous systems and causes fever, vomiting, muscle stiffness and sometimes death. About 50% of those who survive the disease will have permanent paralysis.

Oral polio vaccine (OPV) is given as drops by mouth. Children who have a disease such as leukaemia or HIV/AIDS, who live with someone with such a disease or take oral cortisone treatment should not be given the usual oral polio vaccine, as it may cause paralysis in people whose immune systems aren't working properly. For these people, inactivated polio vaccine (IPV or Salk) is available.

■ **Possible vaccination side-effects:** Occasionally OPV causes headache, muscular pains and mild diarrhoea. Very rarely (about one in three million doses) it may cause paralysis.

Haemophilus influenzae type b (Hib)

Despite its name, Hib isn't related to influenza. It's a bacterial infection that can kill children up to five years of age unless they're immunised. Hib can cause meningitis (inflammation of the membranes covering the brain, which can result in permanent brain damage), swelling in the throat that can block breathing (epiglottitis), pneumonia, joint infection and infection of the tissue under the skin, usually on the face.

■ **Possible vaccination side-effects:** Mild swelling, redness and pain at the injection site may occur in up to 10% of children. Serious reactions have not been reported.

IS IT HARMFUL?

Some parents are opposed to immunisation because of concerns about side-effects. While it's true that any vaccine can produce adverse reactions, these are mild in the vast majority of children. In the Finnish study mentioned above, although fever and inflammation at the injection site were occasionally reported, there were no long-term side-effects in any of the 1.5 million children vaccinated.

People not in favour of vaccinations may also argue that 'natural' immunity (acquired by catching the disease) is life-long, so is preferable to vaccine-induced immunity, which may decrease with time. The trouble is, catching a disease may kill your child or leave him or her permanently disabled or brain-damaged. Vaccines are much safer than the diseases they prevent, and booster doses can be given if immunity fades.

The anti-immunisation lobby also claims infant vaccinations can cause sudden infant death syndrome (SIDS). However, there is no evidence that this is so — in fact, some scientific studies have shown SIDS occurs less frequently in immunised children.

There is no scientific evidence either that immunisation causes other diseases, such as asthma, multiple sclerosis, auto-immune diseases or cancer, as is sometimes claimed.

SIDE-EFFECTS — WHAT CAN YOU DO?

Many children will have a sore arm and a mild fever after getting a jab. You can reduce these common side-effects by giving them a tepid bath and paracetamol (as directed on the pack) to bring down their temperature, avoiding overdressing them if they're hot, giving extra fluids to drink and placing a cold, wet cloth over the sore injection spot.

Contact your doctor or hospital if your child's reaction is severe or persistent.

WHAT ABOUT ADULTS?

Adults should have a diphtheria/tetanus booster every 10 years. You should also be immunised against polio if you haven't been in the past and are going to visit a developing country or if you're not vaccinated and are in close contact with a child who is about to be. Women of child-bearing age should have their antibodies against rubella checked, as their teenage immunisation may have worn off. ❑

SUBSCRIBER 20th DRAW

For new subscriptions and renewals received April 1 to June 30, 1996.

Our 20th draw will be held on July 5, 1996. Two lucky people will win prizes from tests published in CHOICE in October 1995.

1st Prize: A colour inkjet printer valued at up to $750.

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Use the order form overleaf

CONDITIONS OF ENTRY

1. The winner will be drawn from new subscriptions and renewals from personal subscribers (including members and donors of gift subscriptions) received April 1 to June 30, 1996. If you opt for a two-year subscription, you'll be entered on your first anniversary as well as when you actually renew or subscribe. 2. Information on how to enter and prizes forms part of these conditions of entry. 3. Employees, and their immediate families, of the Australian Consumers' Association and its associated companies and agencies are ineligible to enter. 4. Entrants must be residents of Australia. 5. Applications are subject to a verification check and the judge's decision is final. No correspondence will be entered into. 6. The prizes will be delivered free anywhere within Australia. 7. Prizes cannot be taken as cash. 8. South Australian residents may enter the draw by completing the form and posting to: Reply Paid No. 24, ACA, 57 Carrington Road, Marrickville NSW 2204, without subscribing to the magazine. Only one entry per person is permissible through this method. 9. Last date for receipt of entries to the draw is June 30, 1996. No responsibility accepted for lost, late or misdirected mail. 10. The draw will be conducted at the office of the Consumers' Association at 10 am on July 5, 1996. 11. The winner will be notified by letter and published in the earliest feasible issue of CHOICE after that. 12. The promoter is Australian Consumers' Association, 57 Carrington Road, Marrickville NSW 2204. NSW permit No. PC96/0932 issued on 27/2/96, ACT Permit No. TP95/3214 issued under the Lotteries Ordinance on 22/2/96, NT permit No. NT96/0319 issued 23/2/96

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Travel is produced by the UK Consumers' Association and reprinted by CHOICE four times a year. While its reports are from the perspective of a European base, much of the information in them is just as useful to an Australian travelling in Europe and the USA, with occasional forays further afield. There's quality information about different regions, accommodation, specialities of local cuisine, sights to see, as well as places to avoid and tips on dealing with holiday hassles.

A subscription to *Travel* costs just $27 a year — you can use the form on this page to subscribe. The latest issue features:

- New Zealand
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- Scotland
- The Greek Sporades

Portable televisions

Little boxes — do TVs all look just the same?

WHEN YOU'RE CONFRONTED with an array of black boxes all tuned to *The Simpsons*, all looking alarmingly alike, knowing which to choose can be daunting — does Marge Simpson's hair look a bit too blue on the set third from the left?

To help you decide, we tested 10 popular 34 cm TVs with remote controls for performance and ease of use. They're small enough to carry about between the bedroom and the kitchen, they're relatively cheap and are a good option for a second set. They're also ideal as the main set for small living spaces as they can be viewed from as close as 2 m (larger TVs should be viewed from farther away).

HANDY FEATURES

All the sets except the GOLDSTAR CA-14F20 have timers, which switch the set off automatically so you can happily watch while drifting off to sleep, without waking at 3 am to find the TV still blaring. Some of the sets can also switch on at a specified time, which turns them into a useful alarm clock.

PORTABILITY

Although the sets all claim to be portable, some are easier to carry than others (see table, page 44). Many of them have handles which are awkwardly placed or useless as they cannot be gripped securely — you risk dropping the set.

The sets all have 'bunny ears': antennas which can be easily mounted on top of the TV when it's not near an external antenna outlet. This adds to their portability as many homes only have one outlet, often in the lounge room.

WHAT TO BUY

	PHILIPS 14GX3516/75R	$470
equal	**NEC** N-3453	$390
equal	**SHARP** CX-34D2	$400
equal	**SONY** KV-G14S1	$480
BEST BUY	**GE** 14GP220A	$340
equal	**HITACHI** CPT1480-751	$460
equal	**SANYO** C14PA20	$380

Small portable TVs are ideal as a second set or for a small living room.

What to look for

There are three main factors to consider when buying a TV: picture quality, sound quality and ease of use. We've put together some tips to make the choice a little easier.

- Compare picture quality carefully — look for the set with the picture you like best. Watch the sets on several channels. Find a channel that gives the local news or a talk show — this allows you to check for natural skin tones and fine detail such as hair.
- If the picture seems too washed out or the colours too vivid, adjust the colour setting. The brightness and contrast settings might also need to be adjusted. Many TVs have factory-set picture memories which give good balanced pictures. Try these out — ask the sales assistant to show you how they work. They can be useful for returning to a normal picture if the settings have been played with.
- Check that the picture controls don't need to be on maximum to get a good picture. Picture tubes age over time and the settings should have space to be increased.
- The faces in the picture shouldn't appear squashed or stretched. Look at the corners of the screen — distortion may be more noticeable at the edges.
- Listen carefully to the sound — the largest speakers may not always give the best sound quality. Usually sets with the speakers at the front are better, as the sound is coming directly towards you and won't be muffled if you install the TV in a cabinet or wall unit. Try the volume control — you should be able to turn the volume up without the sound distorting.
- Check that the buttons on the remote are well labelled and feel comfortable to use. Functions such as volume, channel up/down and picture settings tend to be used frequently and should be easy to find and use.
- Check that the set has any special features you want — ask the sales assistant or check in the instruction manual.
- If you plan to move the TV set from room to room, make sure it feels comfortable to pick up and carry.

Profiles

The TVs profiled are the top seven performers, in rank order. We've photographed the remote controls as they look quite different, whereas the sets all look pretty much the same. Prices shown are a good target to aim for when shopping around, based on nationwide checks in January 1996. Anything lower is a bargain.

PHILIPS 14GX3516/75R

Target price: $470

Good points

- Good picture quality and well liked by viewing panel.
- Best sound quality of the TVs tested.
- Has four factory-set sound options (voice, music, theatre and normal).
- Personal-preference picture memory for each channel.
- Headphone socket.
- Easy to operate remote control.
- Good portability.
- Can be connected directly to your video recorder without using the antenna socket, thereby giving a better picture (AV line in).
- Sleep timer.

Bad points

- No AV line out.

NEC N-3453

Target price: $390

Good points

- Good picture quality.
- Can be connected directly to your video recorder without using the antenna socket, thereby giving a better picture (AV line in).
- Can be connected to your hifi for better sound quality (AV line out).
- Headphone socket.
- Easy to tune.
- Has both sleep and wake-up timers.
- Factory-set picture memory.

Bad points

- Sound quality not as good as some of the others.

SHARP CX-34D2

Target price: $400

Good points

- Good picture quality.
- Easy to tune.
- Has both sleep and wake-up timers.

Bad points

- Speaker on the side of the set, so sound could be muffled if the TV is in a cabinet.
- Sound quality not as good as some of the others.
- No AV line in or out.
- Not as easy to carry around as most of the others.

GE 14GP220A

Target price: $340

Good points

- Good picture quality.s
- Factory-set picture memory.
- Personal-preference picture memory.
- Sleep timer

Bad points

- If your remote control is lost or broken, you won't be able to change the picture settings or tune in the set.
- Controls on the remote control may be confusing to use.
- No AV line in or out.
- Not as easy to carry around as most of the others.

HITACHI CPT1480-751

Target price: $460

Good points

- Good sound quality.
- Has four factory-set picture memories.
- Has three personal-preference picture memories.
- Has both sleep and wake up timers.
- Can be connected directly to your video recorder without using the antenna socket, thereby giving a better picture (AV line in).
- Can be connected to your hifi for better sound quality (AV line out).

Bad points

- Picture quality not as good as others in *What to buy* list.

SANYO C14PA20

Target price: $380

Good points

- Personal-preference picture memory.
- Sleep timer.
- Can be connected directly to your video recorder without using the antenna socket, thereby giving a better picture (AV line in).
- Can be connected to your hifi for better sound quality (AV line out).

Bad points

- Sound quality not as good as some of the others.
- Not as easy to tune manually as others.
- Speaker on the side of the set, so sound could be muffled if the TV is in a cabinet.

SONY KV-G14S1
Target price: $480
Good points
- Good picture quality.
- Headphone socket.
- Three factory-set picture memories.
- One-touch full auto tuning.
- Flatter screen.
- Can be connected directly to your video recorder without using the antenna socket, thereby giving a better picture (AV line in).
- Can be connected to your hifi for better sound quality (AV line out).
- Has both sleep and wake-up timers.
- Teletext option.

Bad points
- Not as easy to tune manually as others.

Having problems?

Unfortunately, getting a good picture isn't as simple as just turning your set on. Here's a guide to sorting out some problems you may encounter.

TUNING

If you've never tuned in a set before, and the set you're about to buy is not already tuned in, ask the sales assistant for help. Tuning can be fiddly and the instructions aren't always clear. A useful feature to look for is full auto tuning (see *table note 6* on page 45).

RECEPTION

The sets in this test all had good reception. If you find your set has trouble picking up some stations, an appropriate antenna or amplifier (which can be fitted by an antenna specialist) may help. If your home has more than four TV outlets, an amplifier is usually required.

INTERFERENCE

Interference usually takes the form of jagged lines moving across the screen. If you live near power lines or an industrial area, for example, you've a greater chance of having some interference. CB radios, power tools and household appliances can also contribute. Interference can sometimes be reduced by turning or moving the antenna as far away from the source of the problem as possible, or using an amplifier. Ask an antenna specialist for advice. Unfortunately, you can't always eliminate the problem completely.

GHOSTING

Double or 'ghost' images on your screen can be caused by signals being reflected off nearby buildings, trees or hills, for example. Adjusting your existing antenna can help, or you can have an 'anti-ghosting' antenna installed. Amplifiers are of no use in this case, as they may actually increase the problem.

PICTURE QUALITY DETERIORATION

As your picture tube ages, your TV's picture quality may start to decline. This can be offset to a degree by turning your picture settings up higher, but eventually your picture tube may need replacing. Some sets last for up to 20 years before this happens.

For small sets, such as the portable sets tested here, when a tube goes you may have to consider buying a new set (since a tube can be a significant part of the cost of the set — around $200) or opt for the more environmentally conscious option of just replacing the tube. Until manufacturers make TVs which can be fully dismantled and recycled, there will be no easy answers to this dilemma.

For people with disabilities

An occupational therapist from the Independent Living Centre was involved in preparing this guide to help people with disabilities select the right TV.

Sets with full auto tuning can be useful. For many disabilities the **SONY** was found to be the easiest, with a one-touch button to tune in all the channels.

VISUAL IMPAIRMENTS

Clear labelling and a good on-screen display will help, but large and easy to find buttons are also a plus. Of the sets we tested, the following are best:

- The **PANASONIC** has a clearly labelled remote control.
- The **PHILIPS** — the main function buttons on the remote are large and easy to find.
- The **GOLDSTAR** has a very simple remote control with just the main function buttons. It can easily be operated by feel since it only has five buttons.

HAND FUNCTION/DEXTERITY PROBLEMS

Look for a remote control that's easy to grip and has large, well separated buttons. The **PHILIPS** and the **GOLDSTAR** stood out in this regard. The **GOLDSTAR**'s remote can be operated by holding it in one hand and using minimal thumb action.

OPTIONS FOR HEARING-IMPAIRED PEOPLE

- **Hearing devices:** There's a range of hearing devices specially designed to assist people watching TV. They vary in sophistication and price, so it may be helpful to contact SHHH (contact details are given below) for advice. If you don't want to spend a lot of money on equipment, a TV with a headphone socket (see the table overleaf) may be helpful.
- **Teletext:** This gives you access to printed news in addition to printed information services and captioning on selected TV programs.

At present you can get two types of information: **AUSTEXT** from Channel 7 is a news and general information service, and **SUPERTEXT**, a captioning service which gives you subtitles and covers all channels except SBS (which often has subtitles anyway).

If your set has teletext, call up page 801 to bring up subtitles. However, if you want to record something on a VCR and keep the subtitles you'll also need a teletext VCR.

CONTACT PHONE NUMBERS

- Self Help for Hard of Hearing People (SHHH): (02) 44 7586 (voice and TTY).
- Australian Caption Centre (which can provide a listing of programs that carry captions): (02) 212 5277 (voice) or (02) 212 3129 (TTY).

34 cm televisions

	Brand/model (in rank order)	Manufacturer/ distributer	Origin	Warranty (years)	Target Price ($)*	Dimensions H x W x D (mm)	1 Sleep timer	2 Portability	3 Front-mounted speakers	4 AV line in/out	5 Headph socket
	PHILIPS 14GX3516/75R	Philips	Singapore	1	470	350 x 410 x 380	✓	✓✓✓	*(G)*	✓/	✓
equal	**NEC** N-3453 *(A)*	NEC	Thailand	1	390	345 x 370 x 360	✓*(E)*	✓✓	✓	✓/ ✓	✓
	SHARP CX-34D2	Sharp	Malaysia	1	400	325 x 375 x 375	✓*(E)*	✓			
	SONY KV-G14S1	Sony	Malaysia	2	480	350 x 370 x 400	✓*(E)*	✓✓	✓	✓/ ✓	✓
	GE 14GP220A	TCE Marketing	Thailand	1	340	350 x 365 x 365	✓	✓	✓		
equal	**HITACHI** CPT1480-751	Hitachi	Thailand	2	460	355 x 380 x 380	✓*(E)*	✓✓	✓	✓/ ✓	
	SANYO C14PA20	Sanyo	Singapore	1 *(B)*	380	325 x 355 x 385	✓	✓✓		✓/ ✓	
equal	**PANASONIC** TC-14S10A	Panasonic	Malaysia	1 *(C)*	470	360 x 385 x 375	✓	✓✓	✓	✓/ ✓	✓
	GOLDSTAR CA-14F20	LG Electronics	Korea	1	370	335 x 360 x 380		✓	✓		
	TEAC CT-M1401	TEAC	China	1 *(D)*	300	340 x 370 x 370	✓	✓✓		✓/	

The Sony's screen looks noticeably flatter than the other sets. This is due to Sony's 'Trinitron' tube, which is flat in the vertical plane and so less susceptible to light reflections. Sony claims this gives a more focused, brighter and sharper image.

* Prices shown are a good target to aim for, based on nationwide checks in January 1996.

(A) Discontinued in January, but you may still find it in the shops.

(B) Extended to two years for $20.

(C) Extended to three years for $25.

(D) Extended to five years for $60.

(E) Can also be set to switch the TV on at a preset time.

(G) The speakers on the Philips are located at the side, but near the front corners and so they wouldn't be as muffled as some if the TV was in a cabinet.

(H) The Sony has one-touch auto tuning.

(J) The Hitachi also has a blue screen and muting for unallocated channels.

(K) Only one picture memory is available per channel.

(L) The Philips also has four factory- set audio memories.

F Factory-set picture memories

P Personal-preference picture memories which can be altered and stored as desired.

Brands excluded

JVC, Samsung and Akai models couldn't be included in the test because they were to be discontinued before publication. Mitsubishi released a new model too late for this test.

How reliable are they?

We asked a sample of our subscribers whether their TV had needed repair in the past 12 months and whether they would be likely to buy the same brand again. The results are given below for the most popular brands, where sufficient people reported on them (the number in brackets in the tables below refers to the number of sets of that brand in the survey). Some of the brands are no longer on the market.

Around 11% of the people surveyed indicated that their TV had needed repair in that time, with the average cost of repair about $100. Of these repairs, the most common were picture problems.

Brand	% not needing repair
Rank Arena (173)	97
Hitachi (92)	95
NEC (318)	94
Mitsubishi (84)	93
Sony (366)	92
Toshiba (229)	92
Akai (192)	91
AWA (338)	91
JVC (109)	91
Panasonic/National (788)	91
Sharp (397)	91
Thorn (95)	91
Fujitsu General/General (80)	90
Samsung (109)	89
Sanyo (322)	86
TEAC (70)	85
Philips (764)	81
Pye (58)	75

Brand	% who would buy again
JVC (109)	99
Sony (366)	99
Panasonic/National (788)	96
Sharp (397)	96
Mitsubishi (84)	94
NEC (318)	94
AWA (338)	93
Philips (764)	92
Sanyo (322)	92
Hitachi (92)	90
Toshiba (229)	88
Samsung (109)	87
Akai (192)	81
Rank Arena (173)	79
Thorn (95)	78
Fujitsu General/General (80	74
TEAC (70)	74
Pye (58)	68

6 Full auto tuning	7 Ease of manual tuning	8 Blank channel skip	9 Picture memory settings	10 Sound quality score (%)	11 Ease of use score (%)	12 Picture quality score (%)	13 Overall score (%)	Brand/model (in rank order)	
	✓✓	✓	13P *(K)(L)*	90	87	68	76	**PHILIPS** 14GX3516/75R	
	✓✓✓	✓	1F	60	72	69	68	**NEC** N-3453 *(A)*	equal
	✓✓✓	✓		60	70	69	68	**SHARP** CX-34D2	equal
(H)	✓	✓	3F	70	65	68	68	**SONY** KV-G14S1	
	✓✓		1F, 1P	70	62	68	67	**GE** 14GP220A	
	✓✓	✓ *(J)*	4F, 3P	80	67	61	66	**HITACHI** CPT1480-751	equal
	✓		1P	60	69	66	66	**SANYO** C14PA20	equal
	✓✓	✓	1F	70	71	58	63	**PANASONIC** TC-14S10A	equal
	✓✓	✓		70	70	58	63	**GOLDSTAR** CA-14F20	equal
	✓	✓		50	60	61	59	**TEAC** CT-M1401	

1 Sleep timer
This allows you to program the set to switch off at a predetermined time — it's useful if you want to fall asleep in front of the TV or limit your family's viewing.

2 Portability
Although all the sets fall into the category of portable because of their small size, not all are easy to carry about. One tick means you can carry the set but it's not too comfortable; two ticks that it's easy to carry; three ticks that it's very easy.

3 Front-mounted speakers
Front-mounted speakers are recommended as the sound is directed towards you and won't be muffled if the set is placed inside a furniture cabinet.

4 AV line in/out
Audio/video line inputs can be used to connect your VCR or camcorder directly to your TV. This gives improved picture quality compared with using the aerial socket.

Audio line outputs allow you to connect your set to your hifi system for better sound quality.

5 Headphone socket
Useful if you plan to watch TV without disturbing others nearby, or if your hearing is impaired.

6 Full auto tuning
This feature allows you to tune all the channels simultaneously without needing to find the stations' frequencies. The only disadvantage is that the channels will be given consecutive recall numbers starting from 1, so they won't necessarily have the familiar station numbers associated with them.

7 Ease of manual tuning
If you prefer to go through the tuning process manually rather than automatically and tune in each channel individually, ease of tuning is important. Three ticks show the sets that were the easiest to tune, ranging down to one tick for the most complicated sets.

8 Blank channel skip
This allows you to blank out selected channels so they don't appear when you're using the channel up/down buttons. This is useful for going past any unused channels that can creep in when you're tuning.

9 Picture memory settings
Factory settings (F) are useful for returning to a normal-looking picture if the colour, brightness or contrast has been altered. Some sets have more than one picture memory to choose from to allow for different lighting or moods. A few sets allow you to program in your own personal preferences (P).

10 Sound quality score
Sound quality was assessed by listening to music and speech from various TV broadcasts. Music was used to assess clarity, balance and whether the sound had sufficient body. We listened to speech to determine how naturally voices were reproduced. The sound at high volume levels was also checked for distortion.

11 Ease of use score
The main component of this score was ease of use of the remote control, as this is the main link between a user and their TV. The other factors considered were tuning, instructions and portability.

12 Picture quality score
This is made up of two components: technical video tests and an assessment by a panel of viewers. The technical tests used a pattern generator and were for colour balance, resolution, distortion and convergence. The viewing panel formed the main component of the picture quality score, as it represents viewers' preferences.

13 Overall score
The overall score is a combination of sound quality, picture quality and ease of use, weighted as follows:
- Sound quality score: 20%
- Ease of use score: 20%
- Picture quality score: 60%

Some people may prefer the simplicity of the Goldstar remote. However, others may find it annoying that you must toggle through the channel up/down controls instead of being able to call up the channel numbers directly.

RECALLS AND BANS

If you find a recall or ban not on our list, please let us know. Companies often rent 008 or 1800 numbers for a couple of months after the recall is announced. If the number given is no longer operating, phone the manufacturer or retailer direct.

General Motors-Holden's Automotive has recalled several models with automatic transmission built between November 2, 1994, and December 21, 1995, to replace the oil cooler hoses and install new and additional clamps. The cooler hoses may dislodge, causing a major oil leak and significant amounts of smoke if the oil contacts hot engine components. The leak is sufficient to immobilise the vehicle.

Vehicles affected include the VS and VR COMMODORE, EXECUTIVE, S, SS, ACCLAIM, BERLINA, CALAIS, STATESMAN, CAPRICE, HOLDEN UTILITY models and related HSV models with automatic transmission and a production serial number between L772126 and L895407. The production serial number is the last seven digits of the ISO VIN number, which can be seen through the lower left-hand corner of the windscreen.

Contact your local Holden dealership immediately to arrange to have work carried out. For information, contact any Holden dealership service department or the Holden Recall Advice Line on 1800 151 021.

Toyota has recalled all automatic **VR SERIES LEXCEN**s produced from November 3, 1994, to March 31, 1995, and all automatic **T4 SERIES LEXCEN**s produced from the start of production in April 1995 until December 21, 1995, with vehicle identification numbers (VIN) in the following ranges: VR Lexcen models VRK19H, VRL19H, VRX19H, VRK35H and VRL35H with a frame number ranging from ST772126 to ST807354, and T4 Lexcen models T4K19H, T4L19H, T4X19H, T4K35H, T4L35H with a frame number ranging from ST807423 to TT895408. The VIN can be seen through the lower left side of the windscreen from outside the car.

The cars' oil cooler hoses may become loose and displaced, resulting in a major fluid leak and thick smoke if it sprays over the engine exhaust manifold. The vehicle may become immobilised. Owners will be contacted individually by letter and asked to contact their nearest Toyota dealer for immediate rectification. For further information contact any Toyota dealer or the Toyota Customer Assistance Centre toll-free on 1800 800 394.

Volkswagen has recalled **VOLKSWAGEN GOLF/VENTO model year 1994/95** to check and rectify if necessary the location of an anti-sliding device under the rubber strips on the roof, used to locate a roof rack (if fitted). Do not use the roof rack until an inspection has taken place, as there is potential for the roof rack to become detached in use. Affected cars have the following VIN numbers:
WVWZZZ1HZRW649970 to
WVWZZZ1HZRW727620 and
WVWZZZ1HZS007121 to
WVWZZZ1HZSW279220.
The VIN is located on the compliance plate and in the service book. Contact your local authorised Volkswagen dealer for an inspection or further information.

Diamond Salt has recalled all **DIAMOND CRYSTAL SWIMMING POOL SALT** purchased between January 25, 1996, and February 6, 1996, from Steggles Produce Store in Hamilton and the Caltex Service Station in Charlestown, NSW. Diamond Washed Salt with Chemical Additives was inadvertently sold as Diamond Crystal Pool Salt at the above locations. Diamond Washed Salt with Chemical Additives must not be used for pools or human or animal consumption. If you purchased Diamond Crystal Pool Salt from the above locations during the above periods, discontinue use immediately and return it to Steggles Produce, Hamilton, for replacement. If you have already used the product, telephone Mr M Barwick of Diamond Salt on 1800 424 777 or fax (02) 725 5014 for advice.

Timezone has recalled all **SUPER DOME POPPER** novelty items exchanged at any Timezone centre between June 1994 and December 1995. The Poppers were given away as prizes in exchange for tickets obtained by playing Timezone games. The product is being recalled because it poses a possible eye injury risk and should not be used. Return any Super Dome Poppers to your nearest Timezone centre in exchange for an item of equal value or a free game. For further information, contact the merchandise manager on (02) 516 5162.

Franklins has recalled **'BABY DAYS' DECORATED NEW ORTHODONTIC SOOTHER (APN 9310172123980)** and **CHERRY SOOTHER (APN 9310172124000)**. They have been recalled from Franklins stores in NSW, Victoria, Queensland and SA, as the plastic mouthguard may crack after repeated sterilisation. This could leave the teat bulb unprotected and it could be swallowed by a baby or small child. Customers who purchased either of these products should return it to their nearest Franklins store for a full refund. For further information contact Franklins' Customer Services 24-hour hotlines: NSW 008 621 111, Queensland 1800 814 771, SA 008 815 650, Victoria 008 815 718.

Mitsubishi Electric Australia has recalled **AC ADAPTORS FOR MOBILE PHONES (Approval No. L3 N11967)** because the top and bottom covers could separate and result in a potential safety hazard. The adaptors are supplied with or as separate accessories for the following models of Mitsubishi cellular mobile telephone: MT-796, MT-892, MT 896, MT-992, MT-996, MT-1092 and MT-1096. The adaptors can be identified by the approval number on the label and the raised circular plastic moulding around the three power point pins. Stop using the adaptor immediately and contact Mitsubishi Electric Australia's service department on free call 1800 636 609.

A number of **sunglasses** have been recalled because they do not comply with Australian Standard 1067.1 — 1990. Some are not suitable for people with defective colour vision and/or for driving, and some are too narrow and should not be sold in Australia. They include:

Attalla DE NIRO SPORTS with a purple plastic frame and purple lenses, **DE NIRO CLASSICS** with black plastic frame and amber lenses, **DE NIRO CLASSICS** with gold metal frame and light blue lenses. For a full refund, return the glasses with proof of purchase to Attalla, Unit 39, Complex No. 1, Cow Pasture Place, Wetherill Park 2164.

CIPL AMBERSHADES, imported by Chandru International, purchased from King Kong Sales or other discount shops. Return to place of purchase for a full refund. For information, contact (02) 516 5544.

Gypsy's MODEL 23-6116 sunglasses, with silver frame and tortoise-trim arms, narrow oval blue lens. Return with proof of purchase to any Gipsy's store for a full refund.

John D Francis and Associates JOHN LENNON TYPE, item no. KY9021, gold metal frame with red round lenses or black metal frame with purple round lenses. For a refund return to 25 Beaumaris Parade, Highett 3190. For further information contact (03) 9553 1660.

JTA Australia POLAROID FISHING SUNGLASSES, model SP29713BT (marked on the inside of the right-hand arm), with one-piece brown lens and black plastic frame. Return the glasses for refund at the supplier's expense. For information contact customer service on free call 1800 337 991.

Miralink EMPORIO ARMANI model 034S. Send the glasses with proof of purchase to Miralink, PO Box 47, Lidcombe 2141, for a refund, including postage. For further information call Linda or Nancy on (02) 649 5422.

MNB Electronics SUNDANCE glasses with gold metal frame and green oval lenses. For a full refund return to the place of purchase. For information contact (02) 690 1622.

Sunglass Hut International ION SPORT DEFIANCE BLACK MATTE ROSE. Return the glasses to any Sunglass World or Sunglass Hut International for a full refund.

Sunglasses Concept square metal black frame with grey lens and oval silver metal frame with green lens. Return the glasses with proof of purchase for a full refund including postage to 66/68 Wyndham St, Alexandria 2015.

Sunshades A.783A with gold metal frame and bottle green lens; B.157A matt black plastic frame with green multi-layer mirror lens; C.599A tortoiseshell plastic frame with brown graduated lens; D.922H matt silver plastic frame with silver mirror lens. Return the glasses for a refund, including postage, to Unit 4, 904 Bourke Street, Waterloo 2017. For information call (02) 310 7300 or toll free 008 617 289.

Sunski SPORTS GLASS, style 5230.4 crystal frame with yellow tint blade-style lens with spring side arms. For a refund or exchange, contact Sunski on (02) 9906 5477.

Suntrak Enterprises JOHNNY DEXTER model no. 44, small matt black plastic wraparound glasses with silver or red mirror lenses. Return the sunglasses to the store of purchase for a full refund or exchange.

Bangers has recalled **CHINESE LEMON CHICKEN SAUSAGES 400 g (approx.)** packages with a use-by date of February 18, 19, 20 or 21, 1996. The recall is due to the possible inclusion of plastic fragments during preparation. The sausages were distributed to all major supermarkets throughout South Australia. Customers should return the product to their nearest place of purchase for a full refund. For further information, contact Bangers on (08) 332 7566.

Franklins has recalled the 'LEARNING ROAD' SAD SAM PULL ALONG TOY (APN No: 0074319380111), which is shaped like a caterpillar, as the nose and tail of the toy can break off and could be swallowed by small children. The product has been removed from sale in all Franklins stores in NSW, the ACT, Queensland, Victoria and SA. Stop using the toy immediately and return it to your nearest Franklins store for a full refund. For information contact Franklins' Customer Services 24-hour hotline: NSW 008 621 111; Queensland 1800 814 771; SA 008 815 650; Victoria 008 815 718.

Salmon King has recalled its **SLICED SMOKED SALMON 100 g, 300 g, 400 g, 500 g, 1 kg** packs with the batch numbers 3001B and 2601E and **SLICED SMOKED SALMON FILLETS** with the batch numbers 1912H and 3101H, as they may contain low levels of Listeria monocytogenes bacteria. This can cause pregnant women to miscarry, and serious illness in the elderly, young babies and people with low immune systems. Symptoms include fever, headaches, muscle pain and other flu-like symptoms. If you have eaten any of the smoked salmon from the above batches and are experiencing some symptoms of listeria infection, see your doctor. Return any of the above products to the place of purchase for a full refund. For information, contact Adrian Coronno of Salmon King on (02) 281 7141 or fax (02) 212 7404.

CHOICE

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